

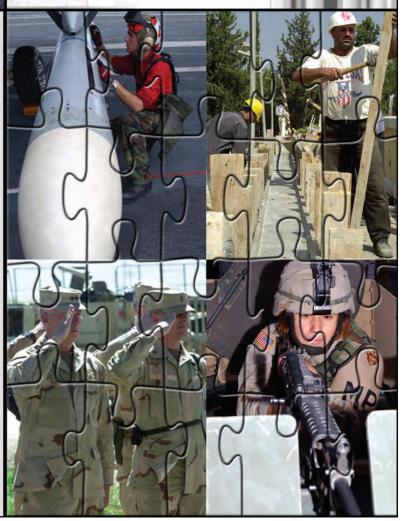
Inspector General
United States
Department of Defense

Evaluation of the DoD Safety Program

December 12, 2008 Report No. IE-2009-001

# DoD Active Duty Safety Survey





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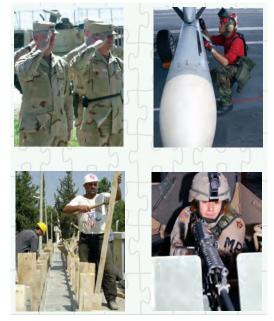
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Maj. Gen. John R. Vines, Commander Coalition Task Force 82, and Brig. Gen. C. William Fox, Deputy Chief Joint Staff 180, salute as the remains of an airman killed in action pass by them, during a ceremony held at Bagram Air Field, Afghanistan.

(U.S. Army photo by Sgt. 1st Class Milton H. Robinson)

#### Civilian

A civilian construction worker removes a nail from a board during construction of a new cement security wall, Incirlik Air Base, Turkey. (U.S. Air Force photo by Senior Airman Matthew Hannen)



#### **Active Duty**

Aviation Ordnanceman Airman Brian Miller of Cleveland, Ohio, assigned to the "Mighty Shrikes" of Strike Fighter Squadron Nine Four secures the fins on an AIM-7 Sea Sparrow missile attached to an F/A-18E Super Hornet on the flight deck of the nuclear powered aircraft carrier USS Nimitz (CVN 68).

(U.S. Navy photo by Photographer's Mate 3rd Class Maebel Tinoko)

#### Guard & Reserve

Pfc. Melissa M. Telaak, from 1st Platoon, 164th Military Police Company, pulls convoy security duty in Kabul, Afghanistan.

(This photo appeared on www.army.mil)

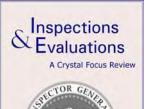
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To educate, protect and influence society to adopt safety, health and environmental policies, practices and procedures that prevent and mitigate human suffering and economic losses.

# **Evaluation of the DoD Safety Program**

DoD Active Duty Safety Perception Survey Results
December 2008



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areas of interest to
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Department of Defense,
and provides timely
findings and
recommendations leading
to positive changes in
programs.

# **Purpose**

This report describes the results of the 2007 Department of Defense (DoD) biennial safety perception survey for the Active Duty population group. Since 2003, the Secretary of Defense has issued several memoranda directing senior leaders to reduce preventable accidents. On May 30, 2007, the Secretary of Defense established the goal of "zero preventable accidents." This survey is one of many DoD Inspector General (IG) efforts to assist the DoD community atlarge to prevent accidents and improve the Department's safety program. The offices of the Secretary of Defense, Combatant Commanders, and Services should review these results to measure safety climate and cultural changes, identify trends, and target safety prevention opportunities.

# **Methodology and Scope**

To establish a sustainable safety survey process, in 2004 the DoD IG partnered with the National Safety Council (NSC) and the Defense Manpower Data Center to develop and administer a DoD safety perception survey for three population groups—Active Duty, DoD Civilians, and Guard and Reserves. The first series of surveys were completed in 2005. Subsequently, the Under Secretary of Defense for Personnel and Readiness requested that the surveys be repeated every two years, using the 2005 results as a baseline for measuring changes and progress.

The DoD IG team adapted the 50-question NSC Safety Barometer Survey and modified it to fit the DoD environment. This methodology allows the survey results to be compared against the Safety Barometer Survey database of over 230 organizations. The 2007 survey was sent to 65,965 active duty personnel—20,175 responded for a 31 percent response rate. The survey questions are grouped into six main categories: 1-Leadership Participation, 2-SupervisorParticipation, 3-Personnel Participation, 4-Safety Support Activities, 5-Safety Support Climate, and 6-Organizational Climate.

# **Survey Results**

The overall active duty percentile score was a moderate 58 out of a possible 100. Active Duty scores were above the 50th percentile for 28 of the 50 survey items, ranking the overall perception of active duty members as above average. For all six program categories, higher-ranking grades continue to generate the most positive perceptions among Active Duty personnel, with a clear pattern of increasingly positive safety perceptions with higher grades. Dissimilarities in perceptions among work locations were found. Personnel working in Clinic/Hospital and on Flightlines continued to have the most positive perceptions, while those in Shop and Outdoor/Field had the least positive. The Navy and Air Force again generated the most positive safety program perceptions. Marine Corps results continued to be moderate. Army respondents had the least positive perceptions, but showed the most improvement since 2005.

## **GENERAL INFORMATION**

Forward questions or comments concerning the Evaluation of the DoD Safety Program: Active Duty Safety Perception Survey Results 2007 and other activities conducted by the Inspections & Evaluations Directorate to:

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## REPORT TRANSMITTAL

We are providing this report for your information and use. No written response to this report was required, and none was received. Therefore, we are publishing this report in final form.

We appreciate the courtesies extended to the staff. Please direct questions to Mr. Gregory D. Sampson at (703) 604-9104 (DSN 664-9104) or Mr. George P. Marquardt at (703) 604-9159 (DSN 664-9159). See Appendix J for the report distribution.

Wm Brem Morrison, III
Assistant Inspector General
for Inspections and Evaluations

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# 1 Department of Defense Safety Perception Surveys—2007

## 1.1 Introduction

This report describes the results of the second series of the DoD biennial safety perception survey for the Active Duty population group.

As one of many initiatives to improve the Department of Defense (DoD) safety program, the Under Secretary of Defense for Personnel and Readiness directed the use of the biennial safety perception survey to periodically measure the DoD safety climate and culture. The first series of the survey were completed in 2005—and serves as the baseline for this and subsequent surveys.

The survey looks at three population groups:<sup>1</sup>

- Active Duty (enlisted and officers O-6 and below, all Services)
- DoD Civilians (all grades below Senior Executive Service)
- Guard and Reserves (enlisted and officers O-6 and below, all Services)

As designed, this report, and follow-on reports, can be used to compare and contrast results against the 2005 baseline survey. Therefore, DoD personnel, program managers, and decision makers can examine the results to measure safety climate and culture changes, identify trends, and target safety prevention opportunities.

Completed safety survey reports are posted on <a href="http://www.dodig.mil/Inspections/IE/Reports.htm">http://www.dodig.mil/Inspections/IE/Reports.htm</a>

# 1.2 Survey Purposes and Objectives

The purposes of the survey program are to:

- Assist DoD managers develop strategies to improve the effectiveness of the DoD safety program;
- Facilitate management's processes to achieve the Department's goal of zero preventable accidents.<sup>2</sup>

The objectives of the survey program are to:

- Measure employees' perceptions of the safety culture throughout DoD;
- Establish a safety climate baseline for 2005 and biennially measure progress against that baseline.

<sup>&</sup>lt;sup>1</sup> The DoD IG also administered a safety survey to all DoD senior leaders—and that survey will be repeated every four years (see http://www.dodig.mil/Inspections/IE/Reports.htm).

<sup>&</sup>lt;sup>2</sup> See App A for Secretary of Defense Memorandum, "Zero Preventable Accidents," May 30, 2007.

**Safety Culture** consists of values, attitudes, perceptions, competencies and behavior of the people that make up the organization. In an organization with a positive safety culture there are high levels of trust; people agree that safety is important and that safety management systems are effective.

**Safety Climate** consists of attitudes and perceptions but does not contain values, competencies and behavior. It differs from safety culture since it is specific to one time and location. It can be used as an indicator of the underlying safety culture.

These definitions indicate that safety climate is a sub-set of safety culture, which is a broader, more enduring organizational feature.

# 1.3 Background

The DoD Inspector General partnered with the National Safety Council (NSC) (<a href="http://www.nsc.org/">http://www.nsc.org/</a>) and the Defense Manpower Data Center (<a href="http://www.dmdc.osd.mil/">http://www.dmdc.osd.mil/</a>) to develop, administer, and analyze the safety surveys.

The DoD IG team adapted the NSC Safety Barometer Survey and modified it to fit the DoD environment. The survey captured employees' perceptions on a broad spectrum of elements that contribute to successful safety management. Over 230 organizations—in and out of government—have used the Safety Barometer Survey and the NSC maintains a data base of all the survey results. Consequently, the data base provides an excellent repository to benchmark results against other organizations and to generate comparative percentile scores on a scale of 0 to 100. A further benefit of this approach is that management can analyze the responses at the lower end of the percentile scores and identify and prioritize potential problem areas.

The 2005 perception survey consisted of 50 questions: 46 were adapted from NSC's 50 Safety Barometer questions and 4 were customized to include DoD special interest in off-duty safety issues.<sup>3</sup> The 2007 survey used all 50 questions in the original NSC survey and deleted the customized questions. This change had no statistical effect on the comparison of individual items, program categories, and any other sub-groups. These can be compared across survey years with sound statistical certainty. Because of these changes, though, survey statements were assigned different identifiers across survey years. The "question number key" in Appendix D cross-references NSC numbers used in this report with those used in the 2005 report.

The Defense Manpower Data Center administered the safety survey as part of the Status of Forces annual survey. Response rates for the 2007 and 2005 surveys for the three population groups are shown. The response rates are considered "good" for this type of survey.

**Survey Response Rates** 

Population Group	2007 (%)	2005 (%)
Active Duty	31	48
DoD Civilian	65	63
Guard and Reserves	33	36

<sup>&</sup>lt;sup>3</sup> The Senior Leader survey conducted in 2005 had 17 questions—12 multiple choice, 3 demographic, and 2 openended, write-ins. The next Senior Leader survey is planned for 2009.

# 2 Summary – Active Duty Safety Perception Survey

## 2.1 Overview

The DoD safety perception survey was a Web-based survey sent to 233,747 DoD active duty, civilian, and reserve component personnel in the spring of 2007 as part of the Defense Manpower Data Center annual Status of Forces Survey. Of the 65,965 active duty selected to receive the survey, 20,175 eligible respondents completed the survey. The weighted response rate was 30.6 percent.

This survey was designed to assess the overall safety climate of the Department of Defense as perceived by the Department of Defense member. The survey had 50 items grouped into six standard program categories: 1-Leadership Participation, 2-Supervisor Participation, 3-Personnel Participation, 4-Safety Support Activities, 5-Safety Support Climate, and 6-Organizational Climate.

## 2.2 Results

# 2.2.1 Summary of Results

Personnel who participated in the Safety Barometer survey were asked to indicate their level of agreement or disagreement with a variety of safety and work-related statements. Respondents replied on a 5-point scale from strongly agree to strongly disagree.

Active Duty survey responses were compared with responses from the 232 participating organizations in the National Safety Council (NSC) database at the time of the initial DoD survey in 2005. These responses generate comparative percentile values. The overall active duty percentile score was a moderate 58 out of a possible 100, a slight improvement from the same population's moderate score of 55 in 2005. Active duty scores on the six standard safety program categories ranged from a moderate 50 percent for Personnel Participation to a moderately high 72 percent for Organizational Climate. Active Duty average response scores are above the 50<sup>th</sup> percentile for 28 of the 50 individual standard survey items, an increase from 21 above average items in 2005.

The safety program items with comparative percentile scores below 50 percent should receive attention. The Active Duty population scored below the mean on the 22 Safety Barometer items listed below. The 18 repeat items from the 2005 survey are noted with the date at the end of the item title. This convention is used throughout the report.

They are presented in order from lowest (20) to highest (49) percentile score.

- Personnel following lockout/tagout procedures 2005
- Unit personnel assignment stability
- Personnel believing that their actions can protect other personnel 2005
- Leadership stressing the importance of safety in communications 2005
- Effectiveness of command safety officer in improving safety conditions 2005
- Supervisors reducing personnel's fear of reporting safety problems 2005
- Supervisors acting on personnel safety suggestions 2005
- Leadership participating in safety activities on a regular basis 2005
- Frequency of safety meeting occurrence 2005
- Presence of safety training in new personnel orientation 2005
- Personnel identifying and eliminating hazards 2005
- Belief that personnel understand safety regulations 2005
- Personnel taking part in the development of safety requirements 2005
- Leadership publishing a policy on the value of personnel safety 2005
- Leadership setting annual safety goals 2005
- Availability of safety officer to provide assistance 2005
- Frequency of detailed and regularly scheduled inspections 2005
- Safety standard level relative to standard duty performance level
- Belief that leadership is sincere in safety efforts 2005
- Personnel being involved in safety practices 2005
- Effectiveness of recognition programs in promoting safe behavior
- Supervisors behaving in accord with safety procedures

For all six program categories, higher rank and grade generated the most positive perceptions among active duty respondents, with a clear pattern of increasingly positive safety perceptions with each successive higher rank and grade. Dissimilarities in perceptions among work locations were found, with those in Flightline and Clinic/Hospital duties continuing to have the most positive perceptions and those in Maintenance and Outdoor/Field duties having the least positive. These results mirrored the 2005 survey results. Branch of Service analyses show the Navy and Air Force again generated the most positive safety program perceptions, with overall percentile scores of 71 and 70, respectively. Comparison between 2007 and 2005 show the Navy increased 5 percentage points, the Marine Corps decreased slightly from 58 percent to 55 percent and the Air Force had the same overall score. Army respondents again had the least positive perceptions, generating an overall score of 43 percent, but showed the most improvement: 8 percentage points over 2005.

#### 2.2.2 Use of Results

The findings in this report should be used for making safety program improvements. The comparative percentile scores may aid in establishing improvement priorities in DoD overall, as well as tailoring improvements to specific subgroups with low scores. The data should also be compared to 2005 results to measure and identify trends in safety perceptions.

# 3 Active Duty Safety Perception Survey Results

## 3.1 Introduction

This report documents the biennial 2007 results of the active duty portion of the DoD Safety Perception Survey, to include comparison to the initial 2005 survey of active duty personnel. This survey was designed to assess the overall safety climate of the Armed Services, both on-and off-duty, including active duty, civilian (Report IE 2009-002), and Guard and Reserve component (Report IE 2009-003) members.

# 3.2 The National Safety Council Partnership

In April 2005, the DoD IG entered into a contract arrangement with the National Safety Council (NSC) to assist the evaluation team develop, administer, and analyze the safety perception surveys. To the extent possible, the survey design was based on the NSC Safety Barometer survey, which allowed the evaluation team to benchmark results against the NSC database of responses from 232 government and non-government organizations. Inclusion of benchmarked data offers additional perspective to understand population perceptions. A further benefit of this approach was the capability to generate a prioritized problem area list based on the comparison.

The analyses that follow compare active duty responses to other organizations' responses in the NSC database by using comparative percentile scores. Responses by personnel subgroups were also compared to develop a more specific understanding of each subgroup's assessment, with priorities customized and targeted for each group. The results can be used to facilitate management decisions to improve the safety program and reduce mishap and accident rates.

# 3.3 Survey Administration

# 3.3.1 Survey Form

To take advantage of the NSC data base, the questions and responses were adapted to be compatible with the Safety Barometer survey and used a 5-point scale from strongly agree to strongly disagree. The standardized items were based on climate-related statements in the Safety Barometer survey, with slight wording changes to adapt the statements to DoD terminology. They represent six fundamental safety program categories:

- ♦ Leadership Participation
- ♦ Supervisor Participation
- ♦ Personnel Participation

- ♦ Safety Support Activities
- ♦ Safety Support Climate
- ♦ Organizational Climate

## 3.3.2 Web-Based Survey

The Defense Manpower Data Center (DMDC) conducted this survey via the Web as part of an annual personnel survey. DMDC collected data and provided the consolidated data-set to the NSC. See Appendix B for methodology.

# 3.4 Survey Analysis

# 3.4.1 Survey Questions

Items in the survey present either a positive or negative description or perception of the safety program. For example, "Good teamwork exists within our unit" is a positive item, while "Safety takes a back seat to performing duties" is a negative item. Interspersing negative and positive items helps ensure respondents focus on the topic of the questions, rather than give a blanket response for all items.

# 3.4.2 Survey Analysis

For each item, an average response score is determined by assigning a value of +2 for a strongly positive response; +1 for a positive response; 0 for a neutral response; -1 for a negative response; -2 for a strongly negative response; and then calculating the average value of all responses for that item. For example, a survey response of "Strongly Agree" is scored +2 for a positive item such as "Good teamwork exists within our unit." However, a response of "Strongly Agree" is scored -2 for "Safety takes a back seat to performing duties," because it is a strongly negative response. In order to compare items and rank order their average response scores, all statements must be construed as positive. A higher average response score then indicates a more favorable response than a lower average response score, and items can be compared as apples to apples. For the scores to make sense as presented in the following figures, negative items such as 'Safety takes a back seat…" are changed to, "Priority of safety issues relative to performing duties…" a positive rephrasing. See Appendix E for more information regarding methods of analysis.

The tables, figures, and charts to follow present safety program issues ranked by priority. Analyzing data from demographic subgroup identifiers allows for comparing responses across personnel categories, and ultimately, setting priorities at the subgroup level. Inferences regarding the prioritization of problem areas can be made from these graphics.

Response frequency and percent distribution of responses for all survey items are shown in Appendix D. Response frequency and percentage distributions by grade, work location, and Service are presented in appendixes F, G, and H, respectively. Appendix I is the list of acronyms, and Appendix J is the report distribution list.

# 3.5 Results

# 3.5.1 Results for the Total Population as Compared to the NSC Database

Table 1 on the following page shows the percent distribution of responses, the average response score, and a comparative percentile score (first column of numbers) for each item. The comparative percentile score measures how Active duty survey participants' opinions compare to the 232 organizations in the NSC database for each of the 50 standard Safety Barometer items. A comparative percentile score expresses the percentage of database companies with a lower average response score than active duty respondents.

Table 1
Percentile Scores, Percent Distribution of Responses, and Average Response Scores - 2007

					Percent D	istribution of	Responses		Average
Category <sup>1</sup>		Statement Letter and Component	Percentile Score <sup>2</sup>	Strongly Positive	Positive	Neutral	Negative	Strongly Negative	Response Score <sup>3</sup>
OC	47	Significance of job stress as a problem for personnel	98	8.9%	32.2%	42.3%	12.6%	3.9%	0.30
OC	9	Condition of unit teamwork	86	16.0%	45.9%	24.4%	8.7%	4.9%	0.59
LP	31	Leadership setting a positive safety example	85	16.2%	45.7%	31.8%	4.2%	2.1%	0.70
SSC	45	Perception that good environmental conditions are kept	79	10.5%	43.8%	35.4%	7.1%	3.2%	0.51
SP	32	Supervisors integrating safety into the performance of duties	73	15.8%	45.1%	34.8%	3.4%	1.0%	0.71
SP	44	Supervisors investigating safety incidents	72	10.5%	38.5%	46.1%	3.9%	1.1%	0.53
PP	20	Personnel using standardized precautions for hazardous materials	71	20.4%	48.8%	28.6%	1.4%	0.8%	0.87
OC	2	Frequency of personnel/leadership interactions	71	18.9%	50.9%	18.4%	8.5%	3.4%	0.73
SSC	36	Belief that hazards not fixed right away will still be addressed	71	8.6%	35.3%	40.1%	13.9%	2.1%	0.35
LP	40	Leadership including safety in job promotion reviews	71	9.6%	28.6%	48.5%	9.6%	3.7%	0.31
LP	21	Leadership providing adequate safety staff	69	12.9%	48.9%	31.5%	5.1%	1.6%	0.67
SSA	15	Thoroughness of near miss accident/incident investigation	69	14.6%	38.6%	39.1%	5.2%	2.5%	0.58
SP	19	Supervisors enforcing safe job procedures	67	20.1%	53.6%	22.8%	2.6%	1.0%	0.89
SSC	3	Priority of safety issues relative to performing duties	67	17.2%	41.7%	24.2%	12.1%	4.7%	0.55
PP	37	Personnel take part when accident or incident investigations occur	67	8.9%	40.7%	45.5%	4.0%	0.9%	0.53
SSA	33	Quality of preventative maintenance system operation	65	7.5%	30.1%	42.4%	16.1%	3.9%	0.21
SP	38	Supervisors providing helpful safety training	64	11.3%	43.7%	40.0%	3.7%	1.3%	0.60
SSC	48	Belief that leadership insists supervisors think safety	63	17.3%	45.1%	34.3%	2.7%	0.7%	0.76
SSC	39	Perception that medical facilities are sufficient	63	13.6%	42.6%	30.8%	8.1%	5.0%	0.52
SSA	29	Occurrence of emergency response procedures testing	60	11.2%	31.7%	39.2%	14.3%	3.6%	0.33
SSA	13	Presence of personnel well-trained in emergency response	58	14.0%	44.8%	31.0%	8.0%	2.2%	0.60
SSC	10	Belief that leadership shows it cares about personnel safety	57	20.1%	48.5%	22.7%	5.4%	3.3%	0.77
SP	5	Supervisors maintaining a high safety performance standard	56	22.7%	45.9%	25.1%	4.2%	2.2%	0.83
PP	46	Personnel using necessary personal protective equipment	55	9.1%	35.3%	39.1%	13.6%	2.8%	0.34
SSC	17	Belief that leadership does more than law requires	53	10.5%	33.9%	36.3%	14.8%	4.4%	0.31
SP	24	Supervisors understanding personnel's job safety problems	52	13.4%	47.8%	35.1%	2.6%	1.1%	0.70
SSC	35	Perception that the safety officer has high status	51	9.1%	29.3%	50.4%	8.8%	2.4%	0.34
OC		Condition of personnel morale	51	7.0%	26.5%	27.5%	23.9%	15.0%	-0.14
SP	12	•	49	21.9%	46.3%	22.3%	7.4%	2.2%	0.78
SSA	22	Effectiveness of recognition programs in promoting safe behavior	49	5.1%	23.4%	48.8%	17.1%	5.6%	0.05
PP	4	Personnel being involved in safety practices	48	10.5%	42.1%	33.9%	10.9%	2.5%	0.47
SSC		Belief that leadership is sincere in safety efforts	47	20.0%	48.1%	26.8%	3.8%	1.3%	0.82
SSC	23	Safety standard level relative to standard duty performance level	47	3.5%	18.6%	51.6%	21.1%	5.2%	-0.06
SSA		Frequency of detailed and regularly scheduled inspections	46	12.8%	40.1%	36.3%	8.1%	2.7%	0.52
SSA	41	Availability of safety officer to provide assistance	44	11.7%	38.1%	41.6%	6.6%	2.1%	0.51
LP	49	Leadership setting annual safety goals	44	12.1%	35.6%	44.4%	6.2%	1.7%	0.50
LP	14	Leadership publishing a policy on the value of personnel safety	43	17.7%	46.5%	29.7%	4.7%	1.3%	0.75
PP	50	Personnel taking part in the development of safety requirements	43	6.0%	29.6%	47.5%	13.4%	3.6%	0.21
PP		Belief that personnel understand safety regulations	42	23.2%	59.1%	16.0%	1.4%	0.4%	1.03
PP	1	Personnel identifying and eliminating hazards	41	25.0%	52.3%	18.0%	3.9%	0.8%	0.97
SSA		Presence of safety training in new personnel orientation	41	20.2%	45.1%	27.3%	5.7%	1.7%	0.76
SSA		Frequency of safety meeting occurrence	40	10.5%	30.6%	38.5%	16.4%	4.0%	0.70
LP	34		37	10.0%	39.4%	42.8%	6.2%	1.6%	0.50
SP		Supervisors acting on personnel safety suggestions	32	10.3%	35.2%	41.0%	10.6%	2.9%	0.39
SP	43	Supervisors acting on personnel safety suggestions  Supervisors reducing personnel's fear of reporting safety problems	29	11.0%	39.7%	39.2%	7.8%	2.3%	0.39
SSA	30	Effectiveness of command safety officer in improving safety condition		10.4%	33.3%	50.4%	4.2%	1.7%	0.47
LP	7	Leadership stressing the importance of safety in communications	22	10.4%	33.0%	29.2%	21.6%	5.9%	0.20
PP	11	Personnel believing that their actions can protect other personnel	21	30.7%	54.7%	13.3%	0.7%	0.6%	1.14
OC	42	Unit personnel assignment stability	21	6.8%	34.1%	40.0%	13.5%	5.6%	0.23
PP		Personnel following lockout/tagout procedures	20	10.2%	29.2%	55.5%	3.4%	1.7%	0.23
	43	reasonner ronowing toekonoragout procedures	20	10.470	47.470	JJ.J7 <b>0</b>	3.470	1.770	V. <del>1</del> 3

<sup>&</sup>lt;sup>1</sup> LP=Leadership Participation, SP=Supervisor Participation, PP=Personnel Participation, SSA=Safety Support Activities, SSC=Safety Support Climate, OC=Organizational Climate

<sup>&</sup>lt;sup>2</sup> A percentile score expresses the percentage of locations in the NSC Database with lower average responses. The percentile score range is from 0 to 100.

<sup>3</sup> Calculated by assigning a value of +2 for strongly positive response; +1 for a positive response; 0 for neutral response; -1 for a negative response; and -2 for a strongly negative response.

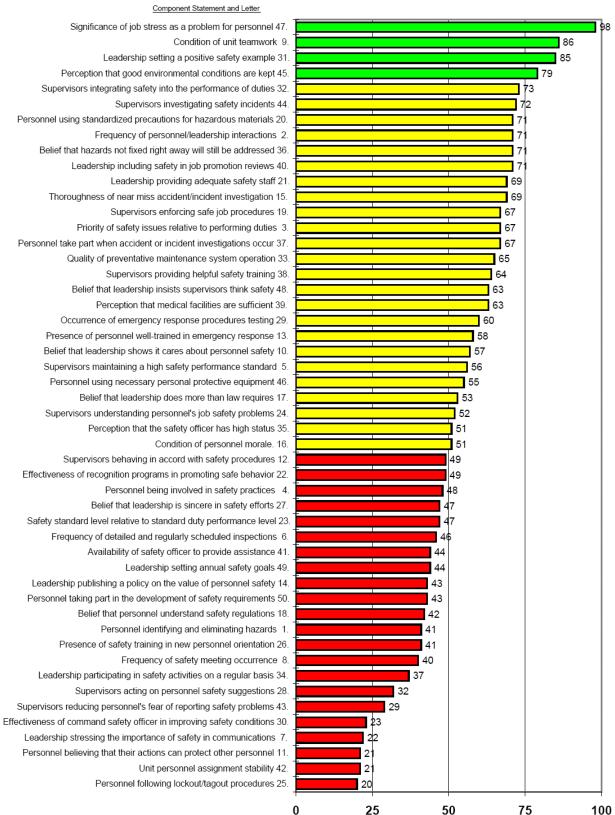
In the 2005 Safety Barometer, DoD substituted four standard survey items with customized items. In 2007, all 50 standard Safety Barometer items are included. Because of these changes, each statement may not be assigned the same question letter across survey years. To compare data across the two survey years and in the future, a standard NSC numbering system will be used in presenting the data. The question number key in Appendix D provides a cross-reference between the NSC numbers used in this report and the question lettering schemes used for the 2005 and 2007 Safety Barometer survey instruments.

Items with the highest average response scores are not necessarily the best performing items. Comparing average response scores with those of other organizations provides a valuable frame of reference. Since some statements tend to be answered more positively or negatively than others, comparing results against the NSC database automatically adjusts for the varying difficulty of the survey statements. A rank order of comparative percentile scores better illustrates where the problem areas lie than a rank order of average response scores.

Items in Figure 1 are listed in order of decreasing comparative percentile scores. Items with identical comparative percentile scores are ordered by average response score, from best to worst. At the top of the table are items that were more highly ranked among Active Duty responses compared with other establishments' responses. Items at the bottom of the table are those that were evaluated less positively compared with responses from other establishments. Items with identical percentile scores are ordered by average response score from best to worst.

The majority of personnel opinions regarding the Active Duty safety program were moderate compared to the NSC database participants. Of the 50 standard items, 28 received above average percentile scores of 50 or above, a slight increase from 21 such items in 2005. In the current survey, 22 standard items received scores below 50. Only one item achieved a high percentile score above 80 in 2005, while 2007 results show three items with percentiles above 80. Four items generated low percentile scores of 20 or below in 2005, while only one such low score was generated in 2007.

Figure 1
Comparative Percentile Scores of Safety Program Items – 2007



# 3.5.2 Highest performing items

As shown in Figure 1, the ten highest performing items received percentile scores of 71 and above. These items consist of three items from the Organizational Climate category, two each in the Leadership Participation, Supervisor Participation, and Safety Support Climate categories, and one Personnel Participation item. There were no items from the Safety Support Activities category in the current group of highest-scoring items.

The most highly rated Leadership Participation and Supervisor Participation items (with their percentile scores) were:

- Q31 Leadership setting a positive safety example (85) 2005
- Q32 Supervisors integrating safety into the performance of duties (73) -2005
- Q44 Supervisors investigating safety incidents (72) 2005
- Q40 Leadership including safety in job promotion reviews (71) 2005

As in 2005, more than half the respondents feel that leadership sets a positive safety example through their words and actions (Question [Q]31) and that their supervisor has successfully integrated safety into performance of duties (Q32). Nearly half believe that their supervisor always investigates safety incidents (Q44), while almost 40 percent indicate that leadership considers a person's safety performance when determining promotions (Q40). Similar to 2005 results, an additional 31-49 percent of participants provided neutral "neither agree nor disagree" responses for each of these items. High rates of neutral responses (above 30 percent) are usually associated with low-ranking program items and rarely with the upper percentiles. Although neutral responses are neither negative nor positive, large percentages of neutral responses often indicate that an item is not sufficiently visible from the perspective of personnel or that the element is not considered relevant by personnel.

The highest scoring Personnel Participation item was:

# Q20 Personnel using standardized precautions for hazardous materials (71)

Improving slightly from 2005 results, almost 70 percent of respondents report that standardized precautions are used by personnel who deal with hazardous materials (Q20).

The highly rated Safety Support Climate items were:

Q45 Perception that good environmental conditions are kept (79) - 2005 Q36 Belief that hazards not fixed right away will still be addressed (71) - 2005 Over half of the respondents indicate that ventilation, lighting, noise, and other environmental conditions are kept at good levels (Q45), while more than 40 percent believe that hazards that are not fixed right away by supervisors are not ignored (Q36). These items also generated more than 30 percent neutral "neither agree nor disagree" responses. Again, elevated neutral responses often indicate that an item is not sufficiently visible from the personnel perspective.

The Organizational Climate items rated most highly were:

- Q47 Significance of job stress as a problem for personnel (98)
- Q9 Condition of unit teamwork (86) 2005
- Q2 Frequency of personnel/leadership interactions (71)

More than 60 percent of respondents feel that good teamwork exists within their unit (Q9) and that there is frequent contact and communication between personnel and leadership (Q2). More than 40 percent feel that the stress of performing their armed service duties is not a significant problem for them nor other personnel in their unit (Q47), while an additional 42 percent provided neutral responses.

## 3.5.3 Below average priority items

As shown in Figure 1, 22 items received percentile scores below the average score of 50. This was a slight improvement from 25 below average items in 2005. Items with below average percentiles are potential target areas that can be used to establish improvement priorities for the Active Duty personnel safety program.

The below average Leadership Participation items (listed from lowest percentile score) were:

- 07 Leadership stressing the importance of safety in communications (22) 2005
- Q34 Leadership participating in safety activities on a regular basis (37) 2005
- 014 Leadership publishing a policy on the value of personnel safety (43) 2005
- Q49 Leadership setting annual safety goals (44) 2005

As in 2005, the highest rate of negative responses among below average Leadership Participation items was approximately one-quarter of respondents indicating that leadership's views on the importance of safety are seldom stressed in personnel communications (Q7). Between 6 percent and 8 percent of responses were negative for the other items. Elevated neutral responses (>30 percent) were provided for leadership regularly participating in safety programs and committee activities (Q34) and leadership annually setting safety goals for which all personnel are held accountable (Q40).

The below average scoring Supervisor Participation items were:

- Q43 Supervisors reducing personnel's fear of reporting safety problems (29) 2005
- Q28 Supervisors acting on personnel safety suggestions (32) 2005
- Q12 Supervisors behaving in accord with safety procedures (49)

Similar to 2005 results, almost 10 percent report that their supervisor's behavior often goes against safety procedures (Q12). More than 10 percent indicate that personnel are afraid to report safety problems to their supervisors (Q43) and that their supervisor seldom acts on personnel safety suggestions (Q28), with approximately 40 percent providing neutral responses.

The Personnel Participation items with below average scores were:

- Q25 Personnel following lockout/tagout procedures (20) 2005
- Q11 Personnel believing that their actions can protect other personnel (21) 2005
- Q1 Personnel identifying and eliminating hazards (41) 2005
- Q18 Belief that personnel understand safety regulations (42) 2005
- Q50 Personnel taking part in the development of safety requirements (43) 2005
- Q4 Personnel being involved in safety practices (48) 2005

Among these items, the highest levels of negative responses were 17 percent of respondents indicating that personnel rarely take part in the development of safety requirements for their jobs (Q50), and almost 14 percent reporting that personnel don't often get involved in developing or revising safety practices (Q4). Both of these items also had more than 30 percent neutral responses. More than half of the respondents provided a neutral "neither agree nor disagree" response regarding personnel following lockout/tagout procedures (Q25).

The below average scoring Safety Support Activities items were:

- Q30 Effectiveness of command safety officer in improving safety conditions (23) 2005
- Q8 Frequency of safety meeting occurrence (40) 2005
- Q26 Presence of safety training in new personnel orientation (41) 2005
- Q41 Availability of safety officer to provide assistance (44) 2005
- Q6 Frequency of detailed and regularly scheduled inspections (46) 2005
- Q22 Effectiveness of recognition programs in promoting safe behavior (49)

More than 20 percent of respondents feel that safety meetings are held less often than they should be (Q8) and that the awards and recognition programs used in the unit are not good at promoting safe behavior (Q22). Three of the five items in this group generated elevated neutral

responses, which may indicate low item visibility for those items. The below average scoring Safety Support Climate items were:

Q23 Safety standard level relative to standard duty performance level (47)

Q27 Belief that leadership is sincere in safety efforts (47) - 2005

Approximately one-quarter of respondents report that job performance standards are higher for professional duties than for safety (Q23), with more than 50 percent providing neutral responses.

The Organizational Climate item with a below average score was:

# Q42 Unit personnel assignment stability (21)

Almost 20 percent of participants feel that the assignment of personnel to their unit is not stable (Q42), with an additional 40 percent indicating a neutral "neither agree nor disagree" response.

It is interesting to note that Active Duty personnel generated elevated neutral responses (>30 percent) for fully 34 of the 50 standard items in the 2007 Safety Barometer, similar to 35 such elements in 2005. Although neutral responses are not necessarily negative, the elevated neutral response rates may indicate that the majority of items or their related programs are not sufficiently visible from the personnel perspective.

# 3.5.4 Comparisons by survey year

Table 2 shows a comparison of percentile scores for individual items across 2005 and 2007, as well as the percentile change between survey years for DoD Active Duty. These are sorted from greatest increase in percentile score (+) to greatest decrease in score (-) since 2005. Those items that generated percentile scores above 75 in each year are shaded green; those identified as below average, with percentiles less than 50, are shaded red. Of the 50 standard items, improvement in percentile scores since 2005 was achieved for 36 items, whereas 8 items saw decreases in percentile scores since the previous survey, with two items showing no change. The four standard Safety Barometer items at the bottom of the table were not surveyed in 2005.

Table 2
Percentile Scores of Program Items by Survey Year

Category <sup>1</sup>				le Scores <sup>2</sup>	Percentile Change
		Statement Number and Component	2005	2007	2005 to 2007
PP	1	Personnel identifying and eliminating hazards	13	41	+28
OC	2	Frequency of personnel/leadership interactions	46	71	+25
SSC	17	Belief that leadership does more than law requires	38	53	+15
PP	4	Personnel being involved in safety practices	33	48	+15
SSC	10	Belief that leadership shows it cares about personnel safety	45	57	+12
SP	5	Supervisors maintaining a high safety performance standard	44	56	+12
LP	31	Leadership setting a positive safety example	74	85	+11
SSA	6	Frequency of detailed and regularly scheduled inspections	36	46	+10
PP	20	Personnel using standardized precautions for hazardous materials	62	71	+9
PP	46	Personnel using necessary personal protective equipment	46	55	+9
SSC	35	Perception that the safety officer has high status	42	51	+9
LP	49	Leadership setting annual safety goals	36	44	+8
SSC	48	Belief that leadership insists supervisors think safety	56	63	+7
SSA	26	Presence of safety training in new personnel orientation	34	41	+7
PP	11	Personnel believing that their actions can protect other personnel	14	21	+7
SP	32	Supervisors integrating safety into the performance of duties	67	73	+6
SSA	41	Availability of safety officer to provide assistance	38	44	+6
PP	50	Personnel taking part in the development of safety requirements	37	43	+6
LP	34	Leadership participating in safety activities on a regular basis	31	37	+6
OC	9	Condition of unit teamwork	81	86	+5
SSA	15	Thoroughness of near miss accident/incident investigation	64	69	+5
SP	19	Supervisors enforcing safe job procedures	62	67	+5
SP	24	Supervisors understanding personnel's job safety problems	47	52	+5
SP	43	Supervisors reducing personnel's fear of reporting safety problems	24	29	+5
SSC	27	Belief that leadership is sincere in safety efforts	43	47	+4
LP	14	Leadership publishing a policy on the value of personnel safety	39	43	+4
SSA	30	Effectiveness of command safety officer in improving safety conditions	20	23	+3
SSC	45	Perception that good environmental conditions are kept	77	79	+2
SSC	36	Belief that hazards not fixed right away will still be addressed	69	71	+2
LP	40	Leadership including safety in job promotion reviews	69	71	+2
PP	37	Personnel take part when accident or incident investigations occur	65	67	+2
SSA	13	Presence of personnel well-trained in emergency response	56	58	+2
PP	18	Belief that personnel understand safety regulations	40	42	+2
SP	38	Supervisors providing helpful safety training	63	64	+1
SSA	29	Occurrence of emergency response procedures testing	59	60	+1
PP	25	Personnel following lockout/tagout procedures	19	20	+1
SP	44	Supervisors investigating safety incidents	72	72	0
LP	21	Leadership providing adequate safety staff	69	69	0
SSA	8	Frequency of safety meeting occurrence	41	40	-1
SSC	3	Priority of safety issues relative to performing duties	69	67	-2
SSA	33	Quality of preventative maintenance system operation	68	65	-3
SSC	23	Safety standard level relative to standard duty performance level	50	47	-3
SP	28	Supervisors acting on personnel safety suggestions	36	32	-4
SP	12	Supervisors behaving in accord with safety procedures	54	49	-5
SSA	22	Effectiveness of recognition programs in promoting safe behavior	54	49	-5
LP	7	Leadership stressing the importance of safety in communications	30	22	-8
OC OC	47	Significance of job stress as a problem for personnel	N/A	98	-8 N/A
SSC	39	Perception that medical facilities are sufficient	N/A	63	N/A
OC	16	Condition of personnel morale	N/A	51	N/A
OC OC	42	Unit personnel assignment stability	N/A	21	N/A

<sup>&</sup>lt;sup>1</sup> LP=Leadership Participation, SP=Supervisor Participation, PP=Personnel Participation, SSA=Safety Support Activities, SSC=Safety Support Climate, OC=Organizational Climate

For each survey year, components with percentile scores above 75 are shaded **green**. Below average (<50) priority items are shaded red.

<sup>&</sup>lt;sup>2</sup> A percentile rank expresses the percentage of locations in the NSC Database with lower average responses. The percentile range is from 0 to 100. N/A: These standard items were not included in the 2005 survey.

Eight items showed notable improvement, generating percentile score increases of 10 points or more since 2005. These included:

- Q1 Personnel identifying and eliminating hazards
- Q2 Frequency of personnel/leadership interactions
- Q17 Belief that leadership does more than law requires
- Q4 Personnel being involved in safety practices
- Q10 Belief that leadership shows it cares about personnel safety
- Q5 Supervisors maintaining a high safety performance standard
- Q31 Leadership setting a positive safety example
- Q6 Frequency of detailed and regularly scheduled inspections

This suggests that efforts to address these items since 2005 have been beneficial.

Among the eight items showing decreases from 2005 to 2007, none show notable declines of more than -10 percentile points. The item showing the largest decreases since 2005 generated a decline of -8 percentile points:

## Q7 Leadership stressing the importance of safety in communications

Looking across survey years, two items consistently appeared among the better-performing items: condition of unit teamwork (Q9) and perception that good environmental conditions are kept (Q45). Eighteen items generated below average percentile scores of less than 50 for both survey years.

# 3.6 Percentile Scores of Program Categories

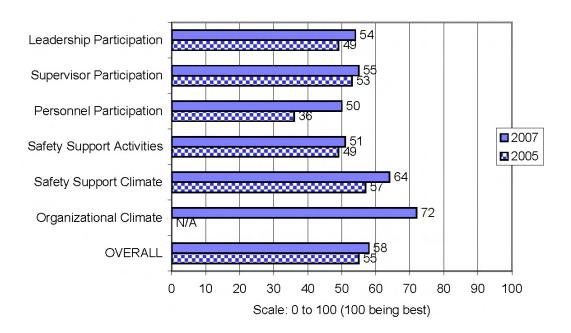
Active Duty average response scores for the six standard Safety Barometer program categories were also compared with establishments in the NSC database. These comparisons are presented in Table 3. From these scores, category percentile scores were generated, which are included in Table 3 and are also presented with 2005 results in Figure 2. For 2007, all program categories had percentile scores at or above the database average of 50, compared to only two above average categories in 2005. In 2007, Organizational Climate program category received the highest percentile score, with a moderately high score of 72. Because of the standard items that were not included in the 2005 survey, no Organizational Climate program category score was generated for that survey. The lowest score continues to be for Personnel Participation, which increased from a moderately low score of 36 in 2005 to a moderate score of 50 in 2007.

Table 3
Average Response Scores and Percentile Scores by Program Category – 2007

	NSC Database <sup>1</sup>	ALL RESPONDENTS		
Program Category	Average Response Score <sup>2</sup>	Average Response Score <sup>2</sup>	Percentile Score	
Leadership Participation	0,50	0.52	54	
Supervisor Participation	0.63	0.66	55	
Personnel Participation	0.66	0.67	50	
Safety Support Activities	0.41	0.43	51	
Safety Support Climate	0.39	0.49	64	
Organizational Climate	0.14	0.34	72	
OVERALL	0.48	0.53	58	

<sup>&</sup>lt;sup>1</sup> National Safety Council (NSC) Database consists of the 232 locations that have participated in an NSC safety perception survey.

Figure 2
Program Category Percentile Scores



<sup>&</sup>lt;sup>2</sup> Average Response Scores have a range from -2 to +2 (+2 being best).

<sup>&</sup>lt;sup>3</sup> A percentile score expresses the percentage of locations in the NSC Database with lower average responses. The percentile score range is from 0 to 100.

IE-2009-001 Evaluation of the DoD Safety Program: Active Duty Safety Perception Survey Results 2007 Finally, the current overall Safety Barometer percentile score is a moderate 58, indicating that 42 percent of the organizations in the NSC database achieved a higher overall score than the DoD Active Duty population. This is an increase of 3 percentile points from the score of 55 in 2005.

# 3.7 Comparisons of Survey Responses by Personnel Subgroups

## 3.7.1 Comparison by grade

Of the total respondents, the number of personnel representing each grade was:

Grade	Number of Respondents (weighted)	Percent of Total Respondents
O4-O6	96,007	7.4%
O1-O3	116,184	8.9%
W1-W5	20,132	1.5%
E5-E9	567,958	43.5%
E1-E4	496,154	38.0%
Not Indicated	7,972	0.6%

The weighted<sup>4</sup> response distributions for each survey item by grade are presented in Appendix F. Personnel responses were compared with establishments in the NSC database to generate percentile scores for the standard program categories. Figure 3 compares the safety perceptions of the five Active Duty grades according to program category.

Consistent with many organizations that have conducted the Safety Barometer, higher-ranking personnel report the most positive safety program perceptions overall in all program categories, while lower-ranking personnel generate the least positive responses. Relative similarity among grade perceptions would indicate the DoD safety program is uniformly administered across all grades while notable differences suggest that improved communication and increased contact among these groups may help to decrease the safety perception gap. Figure 3 shows a clear pattern of increasingly positive safety perceptions with higher grades for all program categories.

<sup>&</sup>lt;sup>4</sup> Weighted responses reflect (1) unequal probabilities of selection into the sample, (2) adjustments to reduce bias due to non-response, and (3) a final adjustment to make sample estimates match population values and to reduce remaining bias.

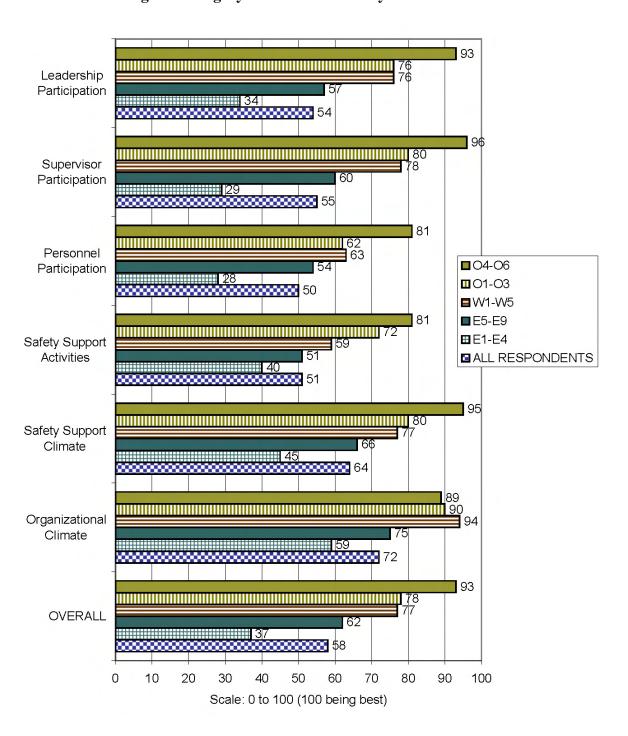


Figure 3
Program Category Percentile Scores by Grade – 2007

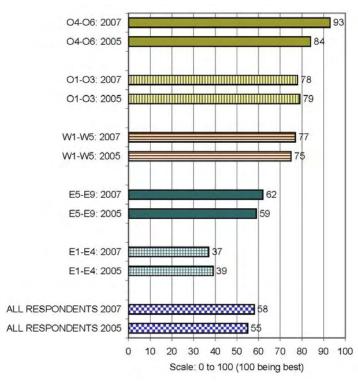


Figure 4
Overall Percentile Scores by Grade

Figure 4 compares the 2007 and 2005 overall percentile scores for each grade. Showing remarkable consistency, most grades generated results somewhat higher, but very similar to, their 2005 results. While most current results are within 3 percentile points of 2005 scores, O4-O6 grade Active Duty personnel improved nine percentile points from a high score of 84 in 2005 to a very high 93 in 2007.

# 3.7.2 Comparison by work location

Of the total respondents, the number of personnel representing each of the work locations was:

Work Location	Number of Respondents (weighted)	Percent of Total Respondents
Office	507,692	38.9%
Shop	119,663	9.2%
Maintenance	106,026	8.1%
Outdoors/Field	102,930	7.9%
Flightline	102,872	7.9%

Work Location	Number of Respondents (weighted)	Percent of  Total  Respondents
Ship	40,820	3.1%
Clinic/Hospital	75,778	5.8%
Other	93,414	7.2%
Not Indicated	155,211	11.9%

The weighted response distributions for each survey item by work location are presented in Appendix E. Personnel responses compared with establishments in the NSC database to generate percentile scores for the standard program categories. Figure 5 compares the safety perceptions of eight Active Duty work locations according to program category.

Leadership Participation 90 <del>74</del> 74 62 Supervisor Participation 50 Personnel Participation **IIII** 85 Safety Support Activities **IIIII** 86 **⊞** Clinic/Hospital ■ Flightline Safety Support Climate Office Other ■Ship ■ Maintenance 83 Organizational ■ Shop Climate ■ Outdoors/Field ■ ALL RESPONDENTS 53 53 **OVERALL** 10 20 30 40 50 60 70 80 90 100 Scale: 0 to 100 (100 being best)

Figure 5
Program Category Percentile Scores by Work Location – 2007

Among DoD Active Duty personnel, Clinic/Hospital, Flightline, and Office staff report the most positive safety program perceptions with consistently above average perceptions. Other and Ship staff tended to generate moderate perceptions. Maintenance, Shop, and Outdoors/Field personnel generally produced the least positive responses, with moderate or below average perceptions. Relative similarity across work locations would indicate that the DoD safety program is uniformly administered across work locations, whereas dissimilarity may indicate disparity in the administration of the safety program.

Figure 6 compares the 2007 and 2005 overall percentile scores for each work location. While most work locations generated similar or improved scores compared with 2005, Ship, Shop, and Outdoors/Field Personnel saw decreases in their percentile scores. Clinic/Hospital demonstrated the greatest improvement, increasing 16 percentile points from a moderately high score of 70 in 2005 to a high score of 86 in 2007. The greatest decrease was generated by Shop personnel, with a decrease of 10 percentile points from an above average 53 in 2005 to a below average 43 in 2007.

Clinic/Hospital: 2007 Clinic/Hospital: 2005 Flightline: 2007 Flightline: 2005 Office: 2007 Office: 2005 Other: 2007 Other: 2005 Ship: 2007 Ship: 2005 Maintenance: 2007 Maintenance: 2005 Shop: 2007 43 Shop: 2007 Outdoors/Field: 2007 35 Outdoors/Field: 2005 42 ALL RESPONDENTS 2007 ALL RESPONDENTS 2005 30 40 Scale: 0 to 100 (100 being best)

Figure 6
Overall Percentile Scores by Work Location

# 3.7.3 Comparison by branch of Service

Of the total respondents, the number of personnel representing each of the branches of Service was:

Branch of Service	Number of Respondents (weighted)	Percent of Total Respondents
Army	459,841	35.3%
Navy	336,201	25.8%
Marine Corps	170,916	13.1%
Air Force	329,477	25.3%
Not Indicated	7,972	0.6%

The weighted<sup>5</sup> response distributions for each survey item by branch of Service are presented in Appendix F. Personnel responses were compared with establishments in the NSC database to generate percentile scores for the 50 standard survey items. Each branch of Service will be addressed in greater detail in their respective branch-specific results discussions.

#### 3.7.3.1 Standardized Items

All 50 safety item percentile scores for each branch of Service are presented in Table 4. For each Active Duty branch of Service, those items that were identified as scoring above the 75<sup>th</sup> percentile are shaded green; those identified as below average priority items (percentile scores <50) are shaded red. In the branch-specific results sections of this report, approximately ten of the highest scoring items are identified to determine strengths and weaknesses for each branch of Service. Table 4 can be used to determine which branch of Service has a particular strength or weakness regarding each of the survey items.

Two items are distinguished as better performing by all branches of Service. These are significance of job stress as a problem for personnel (Q47) and condition of unit teamwork (Q9). Two items, leadership setting a positive safety example (Q31) and perception that good environmental conditions are kept (Q45), are identified by three of the Service branches as better performing items. Seven items (Q32, Q44, Q2, Q36, Q40, Q21, and Q19) are identified by two branches as better-performing among Active Duty personnel. These compare to only four items that scored above the 75<sup>th</sup> percentile by at least two branches of Service in 2005.

<sup>&</sup>lt;sup>5</sup> Weighted responses reflect (1) unequal probabilities of selection into the sample, (2) adjustments to reduce bias due to nonresponse, and 3) a final adjustment to make sample estimates match population values and to reduce remaining bias.

Table 4
Program Item Percentile Scores by Branch of Service – 2007

	Percentile Score <sup>1</sup>				
Statement Number and Component	ALL RESPONDENTS	Army	Navy	Marine Corps	Air Force
47 Significance of job stress as a problem for personnel	98	98	98	99	99
9 Condition of unit teamwork	86	80	89	90	88
31 Leadership setting a positive safety example	85	75	88	80	89
45 Perception that good environmental conditions are kept	79	76	83	75	81
32 Supervisors integrating safety into the performance of duties	73	63	85	66	86
44 Supervisors investigating safety incidents	72	64	79	65	76
20 Personnel using standardized precautions for hazardous materials	71	59	82	68	73
2 Frequency of personnel/leadership interactions	71	68	76	84	69
36 Belief that hazards not fixed right away will still be addressed	71	56	78	72	84
40 Leadership including safety in job promotion reviews	71	50	81	52	81
21 Leadership providing adequate safety staff	69	51	76	71	78
15 Thoroughness of near miss accident/incident investigation	69	57	82	69	70
19 Supervisors enforcing safe job procedures	67	54	78	62	78
3 Priority of safety issues relative to performing duties	67	61	69	64	78
37 Personnel take part when accident or incident investigations occur	67	62	70	64	70
33 Quality of preventative maintenance system operation	65	55	69	74	76
38 Supervisors providing helpful safety training	64	48	73	57	77
48 Belief that leadership insists supervisors think safety	63	57	70	53	68
39 Perception that medical facilities are sufficient	63	61	72	59	56
29 Occurrence of emergency response procedures testing	60	49	71	56	68
13 Presence of personnel well-trained in emergency response	58	49	80	53	68
10 Belief that leadership shows it cares about personnel safety	57	45	67	57	63
5 Supervisors maintaining a high safety performance standard	56	37	73	54	66
46 Personnel using necessary personal protective equipment	55	42	55	57	72
17 Belief that leadership does more than law requires	53	44	61	53	59
24 Supervisors understanding personnel's job safety problems	52	43	52	45	68
35 Perception that the safety officer has high status	51	41	69	50	46
16 Condition of personnel morale	51	44	58	59	51
12 Supervisors behaving in accord with safety procedures	49	34	51	46	65
22 Effectiveness of recognition programs in promoting safe behavior	49	33	54	49	58
4 Personnel being involved in safety practices	48	41	58	46	44
27 Belief that leadership is sincere in safety efforts	47	37	62	38	60
23 Safety standard level relative to standard duty performance level	47	37	51	45	55
6 Frequency of detailed and regularly scheduled inspections	46	23	55	47	54
41 Availability of safety officer to provide assistance	44	34	62	39	54
49 Leadership setting annual safety goals	44	37	52	39	47
14 Leadership publishing a policy on the value of personnel safety	43	33	53	39	51
50 Personnel taking part in the development of safety requirements	43	30	57	44	52
18 Belief that personnel understand safety regulations	42	33	59	35	53
1 Personnel identifying and eliminating hazards	41	35	52	34	41
26 Presence of safety training in new personnel orientation	41	22	52	33	55
8 Frequency of safety meeting occurrence	40	35	37	48	48
34 Leadership participating in safety activities on a regular basis	37	28	52	31	44
28 Supervisors acting on personnel safety suggestions	32	20	38	30	48
43 Supervisors reducing personnel's fear of reporting safety problems	29	20	41	22	45
30 Effectiveness of command safety officer in improving safety conditions	23	21	30	24	21
7 Leadership stressing the importance of safety in communications	22	20	16	19	37
11 Personnel believing that their actions can protect other personnel	21	20	24	14	22
42 Unit personnel assignment stability	21	20	22	24	19
25 Personnel following lockout/tagout procedures	20	12	41	15	23

A percentile score expresses the percentage of locations in the NSC Database with lower average responses. The percentile score range is 0 to 100.

For each branch of service, better performing components with percentile scores above 75 are shaded green.

Below average components (<50) are shaded red.

In contrast, eight below average items are identified as priority items by all Services, with four additional items rated below average by three branches. This compares to 12 such items in 2005. Currently, 12 items are identified by half the Service branches as below average. Although there appears to be some commonality in the areas needing improvement, the personnel in each Active Duty branch of Service demonstrate a unique perspective on the DoD safety program. Further analysis of each branch of Service is provided in Sections 3.8 - 3.11 of this report.

## 3.7.3.2 Program Categories by Branch of Service

The percentile scores for program categories by branch of Service are presented in Figure 7 and highlight the differences and similarities among the branches of Service. Overall Active Duty respondent scores, previously presented in Figure 2, are also included for comparison. As illustrated in Figure 7, Navy and Air Force generally generated the highest, above average program category and overall percentile scores (71 and 70 overall, respectively), while the Marine Corps generated mostly moderate percentiles (55 overall). The Army consistently generated the least positive, below average safety perceptions among Active Duty personnel, resulting in a moderate, below average overall percentile score of 43.

Figure 7
Program Category Percentile Scores by Branch of Service – 2007

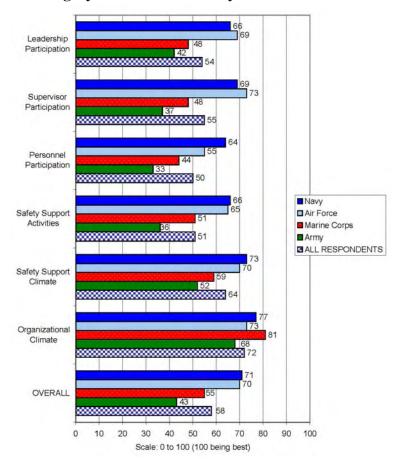


Figure 8 compares the 2007 and 2005 overall percentile scores for each branch of Service. Both the Navy and Army improved their Safety Barometer performance, while Air Force remained consistent across years, and Marine Corps saw a slight decrease in their survey results. Among DoD Active Duty personnel, Army demonstrated the greatest improvement, increasing 8 percentile points from a moderately low score of 35 in 2005 to a moderate score of 43 in 2007.

Figure 9
Overall Work Location Percentile
Scores by Branch of Service – 2007

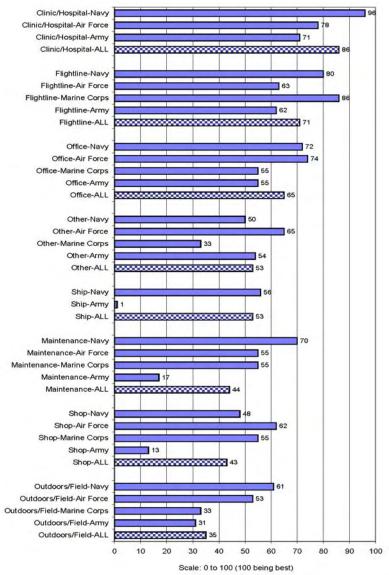
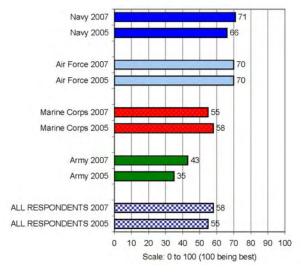


Figure 8
Overall Percentile Score by Branch of Service

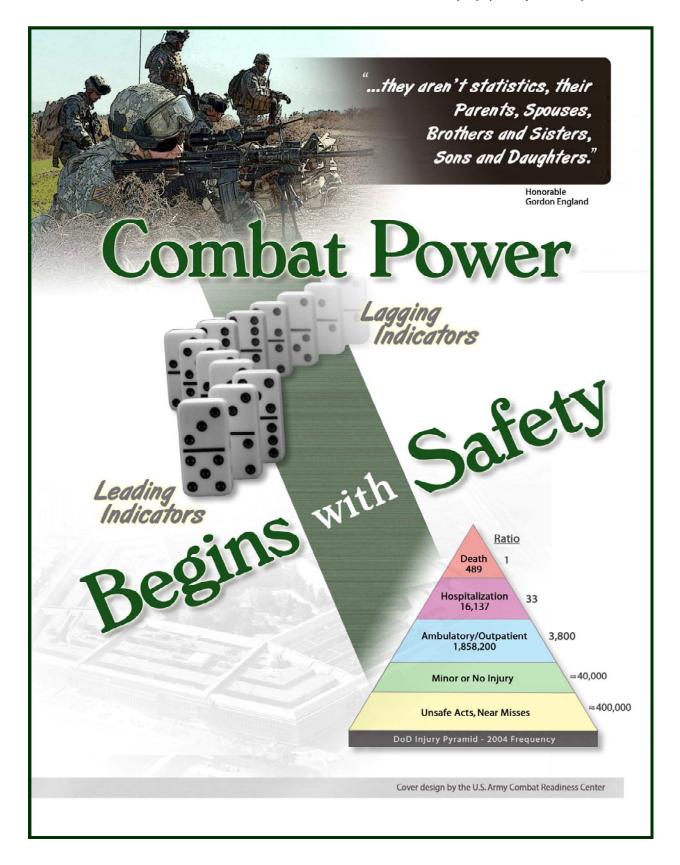


#### 3.7.3.3 Work Locations

Figure 9 graphically compares the overall safety perceptions of Service branches within each Active Duty work location. Due to the small sample size, Ship-Air Force and Ship-Marine Corps are not included in the analysis. As found in the program category analysis of 2007 and 2005 results, Navy and Air Force tended to generate the highest percentile scores for each work location, while Army consistently generated the lowest, moderate to below average scores.

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#### **3.8 ARMY**

Figure 10 graphically presents the Army's percentile scores for each of the 50 standard safety program items. Average performance compared to the NSC database is indicated by the line at the 50<sup>th</sup> percentile. Items with bars that meet or surpass this mark are performing at or above average while items that fall short of this mark are performing below average.

As illustrated in Figure 10, 18 items meet or surpass the 50<sup>th</sup> percentile mark, compared to 12 above average items in 2005. One item achieved a very high score above 90, with one additional item generating a high percentile score of 80. The ten highest scoring items for the Army had percentile scores at or above 61 and are listed below (with percentile scores):

- Q47 Significance of job stress as a problem for personnel (98)
- Q9 Condition of unit teamwork (80) 2005
- Q45 Perception that good environmental conditions are kept (76) 2005
- Q31 Leadership setting a positive safety example (75) 2005
- Q2 Frequency of personnel/leadership interactions (68)
- Q44 Supervisors investigating safety incidents (64)
- Q32 Supervisors integrating safety into the performance of duties (63)
- Q37 Personnel take part when accident or incident investigations occur (62) 2005
- Q39 Perception that medical facilities are sufficient (61)
- Q3 Priority of safety issues relative to performing duties (61) 2005

As indicated by the red shading, the Army generated 32 items with scores below the 50th percentile (representing below average performance), similar to 34 such items in 2005. Among these items, 22 items have moderately low scores below 40, six of which have low scores of 20 or below. Items with below average percentiles (<50) are potential target areas that can be used to determine improvement priorities. The below average priority items are listed below, from lowest to highest percentile score.

- Q25 Personnel following lockout/tagout procedures (12) 2005
- Q7 Leadership stressing the importance of safety in communications (20) 2005
- Q42 Unit personnel assignment stability (20)
- Q28 Supervisors acting on personnel safety suggestions (20) 2005
- Q43 Supervisors reducing personnel's fear of reporting safety problems (20) 2005
- Q11 Personnel believing that their actions can protect other personnel (20) 2005
- Q30 Effectiveness of command safety officer in improving safety conditions (21) 2005
- Q26 Presence of safety training in new personnel orientation (22) 2005
- Q6 Frequency of detailed and regularly scheduled inspections (23) 2005
- Q34 Leadership participating in safety activities on a regular basis (28) 2005

- Q50 Personnel taking part in the development of safety requirements (30) 2005
- Q22 Effectiveness of recognition programs in promoting safe behavior (33) 2005
- Q14 Leadership publishing a policy on the value of personnel safety (33) 2005
- Q18 Belief that personnel understand safety regulations (33) 2005
- Q41 Availability of safety officer to provide assistance (34) 2005
- Q12 Supervisors behaving in accord with safety procedures (34) 2005
- Q8 Frequency of safety meeting occurrence (35) 2005
- Q1 Personnel identifying and eliminating hazards (35) 2005
- Q23 Safety standard level relative to standard duty performance level (37) 2005
- Q49 Leadership setting annual safety goals (37) 2005
- Q27 Belief that leadership is sincere in safety efforts (37) 2005
- Q5 Supervisors maintaining a high safety performance standard (37) 2005
- Q35 Perception that the safety officer has high status (41) 2005
- Q4 Personnel being involved in safety practices (41) 2005
- Q46 Personnel using necessary personal protective equipment (42) 2005
- Q24 Supervisors understanding personnel's job safety problems (43) 2005
- Q16 Condition of personnel morale (44)
- Q17 Belief that leadership does more than law requires (44) 2005
- Q10 Belief that leadership shows it cares about personnel safety (45) 2005
- Q38 Supervisors providing helpful safety training (48) 2005
- Q29 Occurrence of emergency response procedures testing (49) 2005
- Q13 Presence of personnel well-trained in emergency response (49) 2005

Figure 10
Percentile Scores of Safety Program Items - Army – 2007

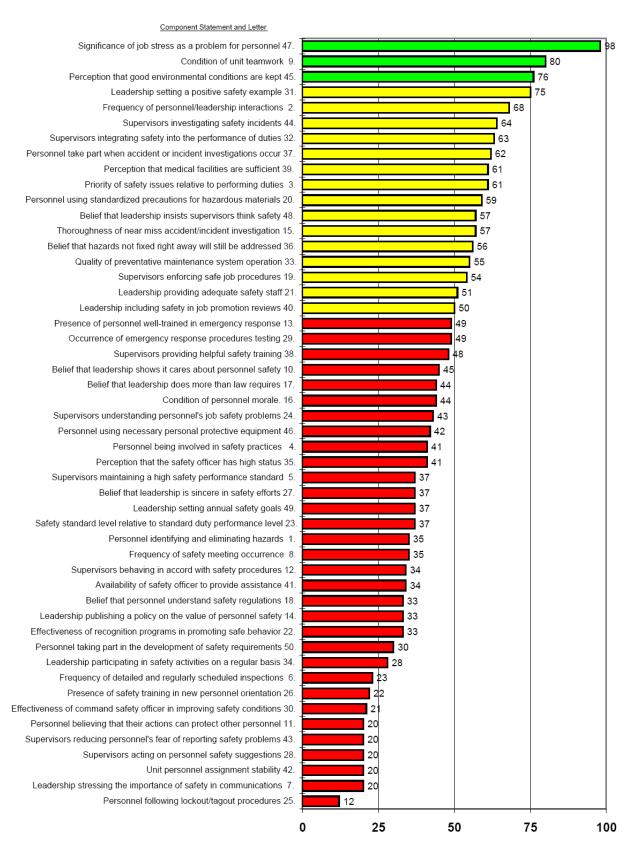


Figure 11 compares the Army results against all Active Duty respondents. All six program categories and the overall score for the Army are lower than the All Respondents results. The Army percentile scores range from a moderately low score of 33 for Personnel Participation to an above average 68 for Organizational Climate. The overall Army percentile score is a moderate 43 indicating that 57 percent of the database organizations achieved a higher overall score than did the Army. This is an increase of 8 percentile points from Army's moderately low score of 35 in 2005.

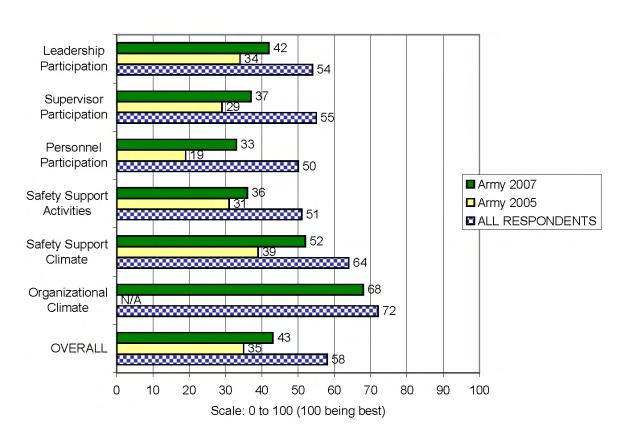


Figure 11
Program Category Percentile Scores – Army

Figure 12 compares the safety perceptions of the Army Active Duty grades according to program category. These grades are E1-E4, E5-E9, W1-W5, O1-O3, and O4-O6. Consistent with many organizations that have conducted the Safety Barometer, as well as Army's 2005 results, higher-ranking personnel report the most positive safety program perceptions overall and in all program categories, while lower-ranking personnel generate the least positive responses. O4-O6 staff perceptions are considerably more positive than other Army Active Duty, while O1-O3 and W1-W5 are relatively similar to each other. Enlisted grades (E1-E9) generated mostly below average percentile scores for program categories and overall. Relative similarity among grade

perceptions would indicate that the DoD safety program is uniformly administered across grades, while notable differences would suggest that improved communication and increased contact among these groups may help to decrease the safety perception gap. Figure 12 shows a general pattern of increasingly positive safety perceptions with higher grades.

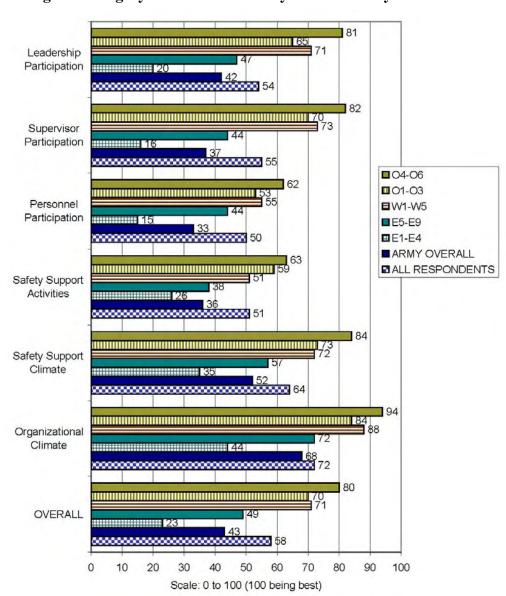


Figure 12
Program Category Percentile Scores by Grade – Army – 2007

Figure 13 compares the safety perceptions of eight Active Duty Army work locations according to program category. These work locations are Office, Shop, Maintenance, Outdoors/Field, Flightline, Ship, Clinic/Hospital, and Other.

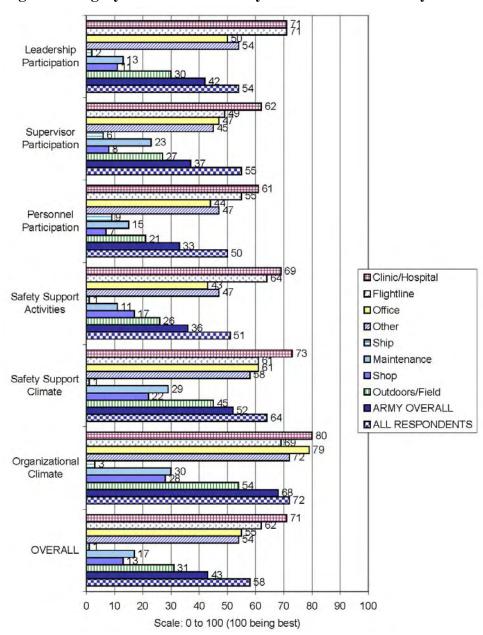
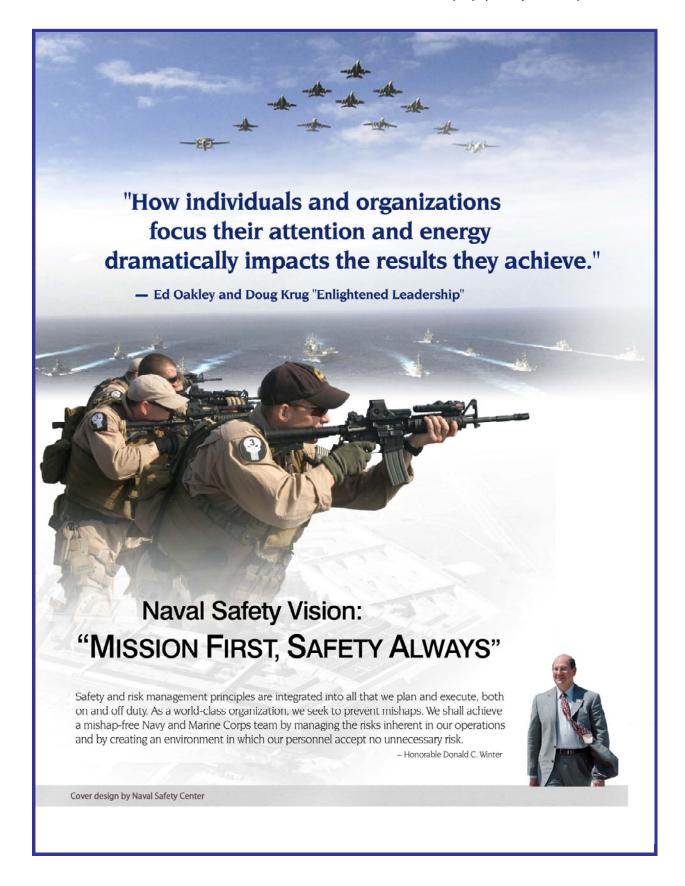


Figure 13
Program Category Percentile Scores by Work Location – Army – 2007

Clinic/Hospital and Flightline personnel tend to report the most positive safety program perceptions. Clinic/Hospital is the only work location that generated above average percentile scores for all program categories and overall. Office and Other staff tended to generate moderate perceptions. Ship, Maintenance, Shop, and Outdoors/Field personnel consistently generate the least positive responses with well below average perceptions. For all categories and overall, Ship personnel generated very low scores below 10. Relative similarity among work locations would indicate the Army safety program is uniformly administered across work locations. Dissimilarity may indicate disparity in the administration or perception of the safety program.

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#### **3.9 NAVY**

Figure 14 graphically presents the Navy's percentile scores for each of the 50 standard safety program items. Average performance compared to the NSC database is indicated by the line at the 50<sup>th</sup> percentile. Items with bars that meet or surpass this mark are performing at or above average while items that fall short of this mark are performing below average.

As illustrated in Figure 14, 42 items meet or surpass the 50<sup>th</sup> percentile mark, compared to only 28 above average items in 2005. Nine items achieved high percentile scores at or above 80. The ten highest scoring items for the Navy had percentile scores at or above 79 and are listed below (with percentile scores):

- Q47 Significance of job stress as a problem for personnel (98)
- Q9 Condition of unit teamwork (89) 2005
- Q31 Leadership setting a positive safety example (88) 2005
- Q32 Supervisors integrating safety into the performance of duties (85) 2005
- Q45 Perception that good environmental conditions are kept (83)
- Q20 Personnel using standardized precautions for hazardous materials (82) 2005
- Q15 Thoroughness of near miss accident/incident investigation (82)
- Q40 Leadership including safety in job promotion reviews (81)
- Q13 Presence of personnel well-trained in emergency response (80)
- Q44 Supervisors investigating safety incidents (79)

As indicated by the red shading, the Navy generated only eight items with scores below the 50th percentile (representing below average performance), compared to 18 such items in 2005. Among these items, six items have moderately low scores below 40, one of which has a low score below 20. Items with below average percentiles (<50) are potential target areas that can be used to determine improvement priorities. The below average priority items are listed below, from lowest to highest percentile score.

- Q7 Leadership stressing the importance of safety in communications (16) 2005
- Q42 Unit personnel assignment stability (22)
- Q11 Personnel believing that their actions can protect other personnel (24) 2005
- Q30 Effectiveness of command safety officer in improving safety conditions (30) 2005
- Q8 Frequency of safety meeting occurrence (37) 2005
- Q28 Supervisors acting on personnel safety suggestions (38) 2005
- Q43 Supervisors reducing personnel's fear of reporting safety problems (41) 2005
- Q25 Personnel following lockout/tagout procedures (41) 2005

Figure 14
Percentile Scores of Safety Program Items – Navy –2007

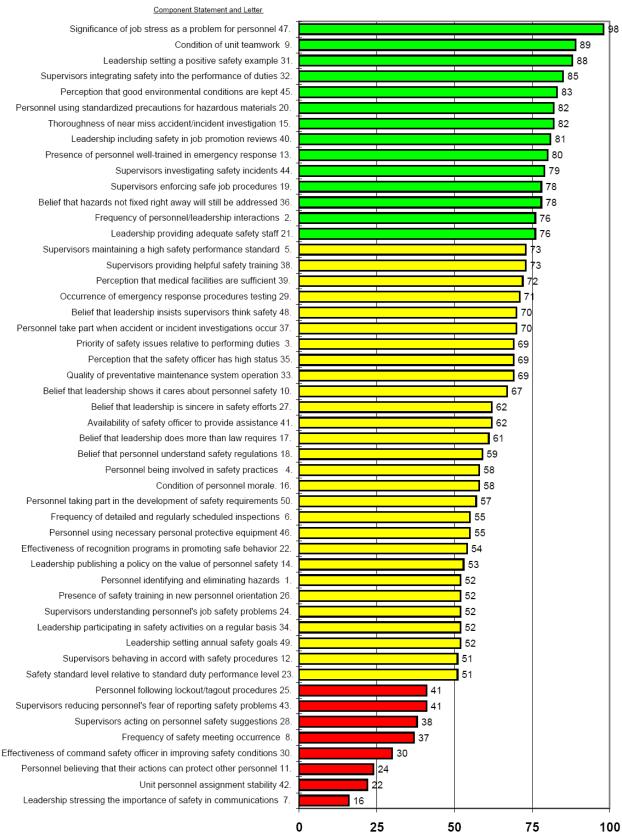


Figure 15 compares the Navy results against all Active Duty respondents. All six program categories and the overall score for the Navy are above the database average of 50 and higher than the All Respondents results. The Navy percentile scores range from an above average score of 64 for Personnel Participation to a moderately high score of 77 for Organizational Climate. The overall Navy percentile score is a moderately high 71, indicating that 29 percent of the database organizations achieved a higher overall score than did the Navy. This is an increase of 5 percentile points from Navy's above average score of 66 in 2005.

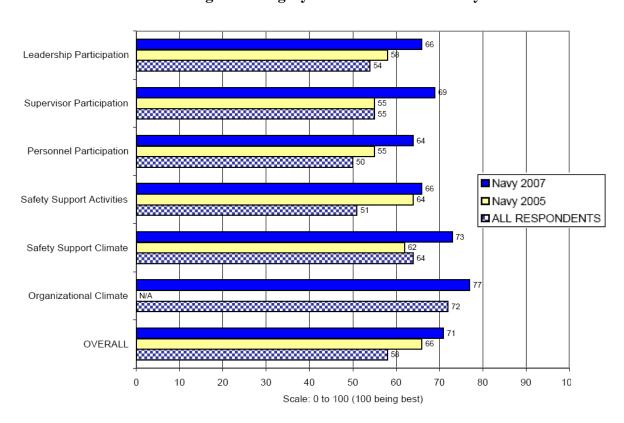


Figure 15
Program Category Percentile Scores – Navy

Figure 16 compares the safety perceptions of the Navy Active Duty grades according to program category. These grades are E1-E4, E5-E9, W1-W5, O1-O3, and O4-O6. Consistent with many organizations that have conducted the, Safety Barometer and Navy's 2005 results, higher-ranking personnel report the most positive safety program perceptions overall and in all program categories, while lower-ranking personnel generate the least positive responses. W1-W5 personnel generated very high percentile scores above 90 for all program categories, achieving the highest possible score of 100 for Supervisor Participation, Safety Support Climate, Organizational Climate, and Overall. Similarly, O4-O6 achieved very high scores above 90 for

most categories, generating a score of 100 for Supervisor Participation, but an above average 69 for Organizational Climate. O1-O3 tended to generate moderately high to high scores. E5-E9 personnel tend to generate moderately high percentile scores in the 60s and 70s, and E1-E4 consistently generated the lowest scores, with moderately low to moderate results of all categories except Organizational Climate. Relative similarity among grade perceptions would indicate that the DoD safety program is uniformly administered across grades, while notable differences suggest that improved communication and increased contact among these groups may help to decrease the safety perception gap.

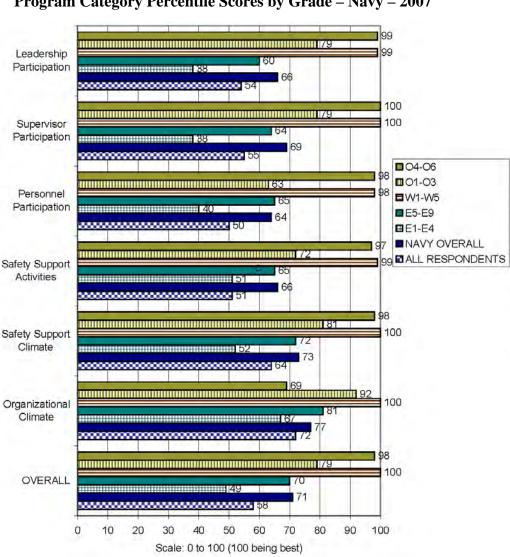


Figure 16
Program Category Percentile Scores by Grade – Navy – 2007

Figure 17 compares the safety perceptions of eight Active Duty Navy work locations according to program category. These work locations are Office, Shop, Maintenance, Outdoors/Field, Flightline, Ship, Clinic/Hospital, and Other.

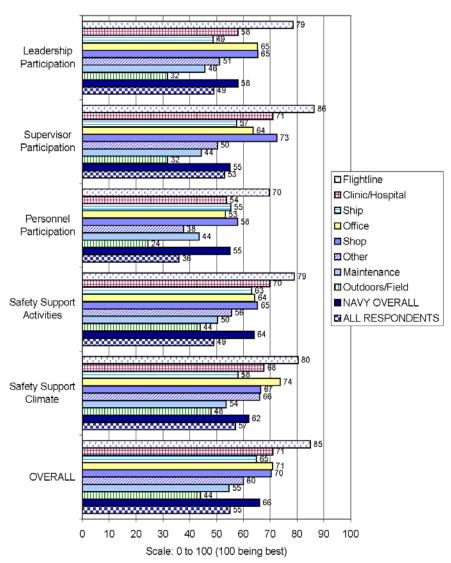


Figure 17
Program Category Percentile Scores by Work Location – Navy – 2007

Clinic/Hospital personnel report the most positive safety program perceptions, with mostly very high scores in the 90s. Flightline, Office, and Maintenance staff results are relatively similar to each other. These work locations generated above average scores for their categories and overall. Other, Ship, and Outdoors/Field staff tended to exhibit moderate perceptions, while Shop staff generates the least positive responses for most program categories with below average perceptions. Relative similarity among work locations would indicate that the Navy safety program is uniformly administered across work locations, whereas dissimilarity may indicate disparity in the administration of the safety program.

#### 3.10 MARINE CORPS

Figure 18 graphically presents the Marine Corps' percentile scores for each of the 50 standard safety program items. Average performance compared to the NSC database is indicated by the line at the 50<sup>th</sup> percentile. Items with bars that meet or surpass this mark are performing at or above average while items that fall short of this mark are performing below average.

As illustrated in Figure 18, 27 items meet or surpass the 50<sup>th</sup> percentile mark, similar to 22 above average items in 2005. Four items achieved a high percentile score above 80. The ten highest scoring items for the Marine Corps have percentile scores at or above 68 and are listed below (with percentile scores):

- Q47 Significance of job stress as a problem for personnel (99)
- Q9 Condition of unit teamwork (90) 2005
- Q2 Frequency of personnel/leadership interactions (84) 2005
- Q31 Leadership setting a positive safety example (80) 2005
- Q45 Perception that good environmental conditions are kept (75) 2005
- O33 Ouality of preventative maintenance system operation (74) 2005
- Q36 Belief that hazards not fixed right away will still be addressed (72) 2005
- Q21 Leadership providing adequate safety staff (71) 2005
- Q15 Thoroughness of near miss accident/incident investigation (69) 2005
- Q20 Personnel using standardized precautions for hazardous materials (68)

As indicated by the red shading, the Marine Corps generated 23 items with scores below the 50th percentile (representing below average performance), similar to 24 such items in 2005. Among these items, 15 items have moderately low scores of 40 or below, three of which have low scores below 20. Items with below average percentiles (<50) are potential target areas that can be used to determine improvement priorities. The below average priority items are listed below, from lowest to highest percentile score.

- Q11 Personnel believing that their actions can protect other personnel (14) 2005
- Q25 Personnel following lockout/tagout procedures (15) 2005
- Q7 Leadership stressing the importance of safety in communications (19) 2005
- Q43 Supervisors reducing personnel's fear of reporting safety problems (22) 2005
- Q42 Unit personnel assignment stability (24)
- Q30 Effectiveness of command safety officer in improving safety conditions (24) 2005
- Q28 Supervisors acting on personnel safety suggestions (30) 2005
- Q34 Leadership participating in safety activities on a regular basis (31) 2005
- Q26 Presence of safety training in new personnel orientation (33) 2005
- Q1 Personnel identifying and eliminating hazards (34) 2005

- Q18 Belief that personnel understand safety regulations (35) 2005
- Q27 Belief that leadership is sincere in safety efforts (38) 2005
- Q49 Leadership setting annual safety goals (39) 2005
- Q41 Availability of safety officer to provide assistance (39) 2005
- Q14 Leadership publishing a policy on the value of personnel safety (39) 2005
- Q50 Personnel taking part in the development of safety requirements (44) 2005
- Q23 Safety standard level relative to standard duty performance level (45) 2005
- Q24 Supervisors understanding personnel's job safety problems (45)
- Q4 Personnel being involved in safety practices (46) 2005
- Q12 Supervisors behaving in accord with safety procedures (46)
- Q6 Frequency of detailed and regularly scheduled inspections (47) 2005
- Q8 Frequency of safety meeting occurrence (48) 2005
- Q22 Effectiveness of recognition programs in promoting safe behavior (49)

Figure 18
Percentile Scores of Safety Program Items - Marine Corps - 2007

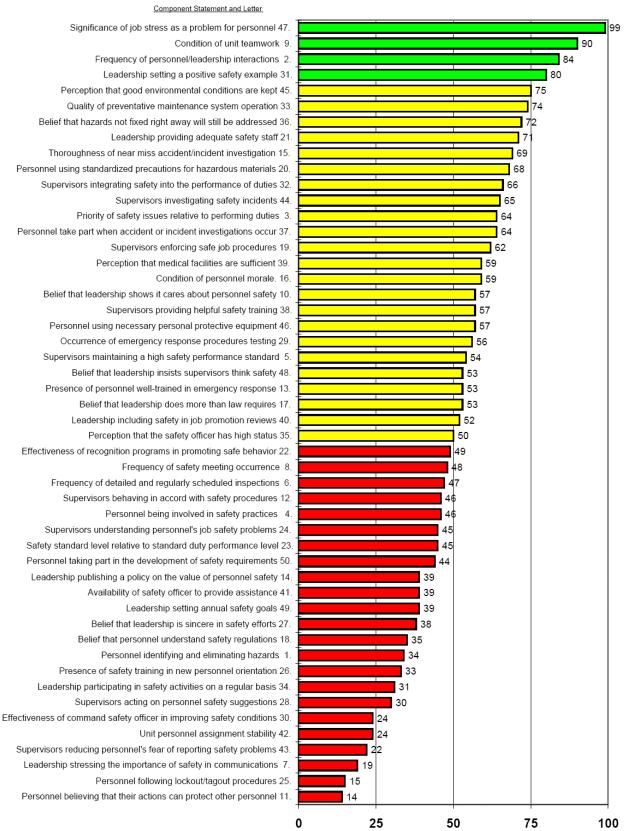


Figure 19 compares the Marine Corps results against all Active Duty respondents. For four of the six program categories and the overall score, the Marine Corps results are lower than the All Respondents results. The Marine Corps results are mostly moderate, with half the program categories generating scores above the database average of 50. The Marine Corps percentile scores range from a moderate, below average score of 44 for Personnel Participation to a high 81 for Organizational Climate. The overall Marine Corps percentile score is a moderate 55, indicating that 45 percent of the database organizations achieved a higher overall score than did the Marine Corps. This is a slight decrease from Marine Corps's above average score of 58 in 2005.

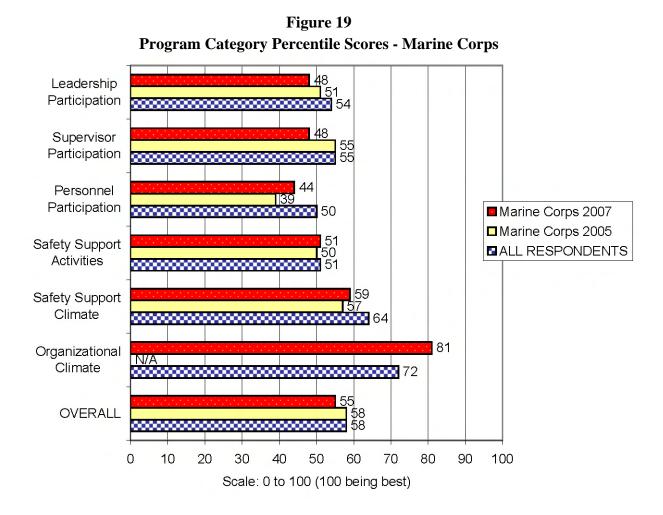


Figure 20 compares the safety perceptions of the Marine Corps Active Duty grades according to program category. These grades are E1-E4, E5-E9, W1-W5, O1-O3, and O4-O6. Consistent with many organizations that have conducted the Safety Barometer, and Marine Corp's 2005 results, higher-ranking personnel report the most positive safety program perceptions overall and in all program categories, while lower-ranking personnel generate the least positive responses.

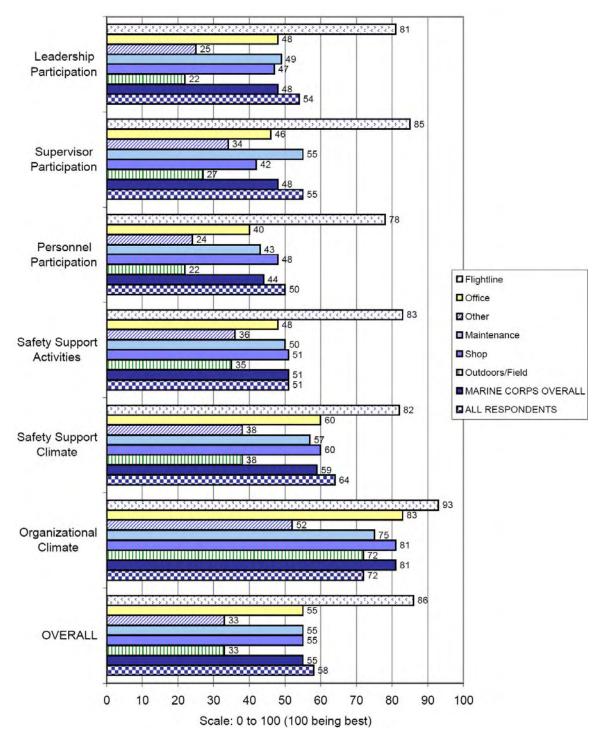
O4-O6, O1-O3, and W1-W5 staff are relatively similar to each other and generated many high to very high scores in the 80s and 90s. Both O4-O6 and W1-W5 achieved the highest possible score of 100 for Organizational Climate. E5-E9 personnel tend to generate moderate to moderately high percentile scores in the 50s and 60s, and E1-E4 consistently generated the lowest scores, with below average results for all categories except Organizational Climate. Relative similarity among grade perceptions would indicate that the DoD safety program is uniformly administered across grades, while notable differences suggest that improved communication and increased contact among these groups may help to decrease the safety perception gap.

85 Leadership Participation 92 Supervisor Participation **O**4-06 **II** 01-03 ■W1-W5 81 ■E5-E9 Personnel **⊞** E1-E4 Participation ■ MARINE CORPS OVERALL ■ ALL RESPONDENTS 73 Safety Support Activities Safety Support Climate 100 100 Organizational Climate **OVERALL** 10 20 90 100 Scale: 0 to 100 (100 being best)

Figure 20
Program Category Percentile Scores by Grade - Marine Corps – 2007

Figure 21 compares the safety perceptions of six Active Duty Marine Corps work locations according to program category. These work locations are Office, Shop, Maintenance, Outdoors/Field, Flightline, and Other. To avoid making inaccurate generalizations based on an inadequate or absent sample, results were not computed for the Clinic/Hospital and Ship categories.

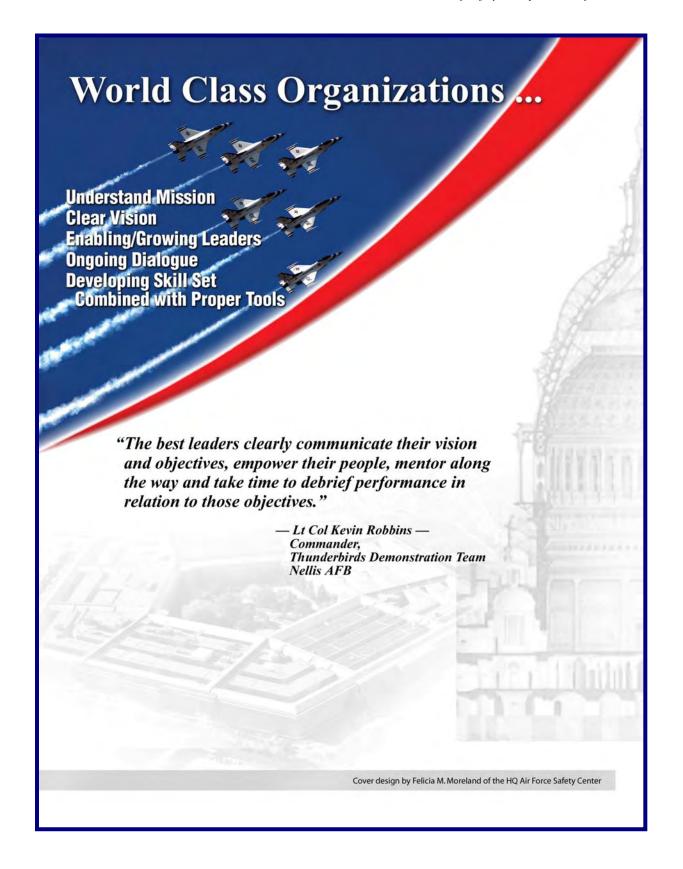
Figure 21
Program Category Percentile Scores by Work Location - Marine Corps – 2007



Flightline personnel report the most positive safety program perceptions, with moderately high to very high scores in the 70s through 90s. None of the remaining work locations generated above average scores for all categories and overall. Other and Outdoors/Field staff results are relatively similar to each other and consistently generate the least positive responses with moderately low, below average perceptions for all categories except Organizational Climate. Relative similarity among work locations would indicate that the Marine Corps safety program is uniformly administered across work locations, whereas dissimilarity may indicate disparity in the administration of the safety program.

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#### 3.11 Air Force

Figure 22 graphically presents the Air Force's percentile scores for each of the 50 standard safety program items. Average performance compared to the NSC database is indicated by the line at the 50<sup>th</sup> percentile. Items with bars that meet or surpass this mark are performing at or above average while items that fall short of this mark are performing below average.

As illustrated in Figure 22, 37 items meet or surpass the 50<sup>th</sup> percentile mark, similar to 31 above average items in 2005. Seven items achieved a high percentile score at or above 80. The ten highest scoring items for the Air Force had percentile scores at or above 78 and are listed below (with percentile scores):

- Q47 Significance of job stress as a problem for personnel (99)
- Q31 Leadership setting a positive safety example (89) 2005
- Q9 Condition of unit teamwork (88) 2005
- Q32 Supervisors integrating safety into the performance of duties (86) 2005
- Q36 Belief that hazards not fixed right away will still be addressed (84) 2005
- Q45 Perception that good environmental conditions are kept (81) 2005
- Q40 Leadership including safety in job promotion reviews (81) 2005
- 019 Supervisors enforcing safe job procedures (78) 2005
- Q21 Leadership providing adequate safety staff (78)
- Q3 Priority of safety issues relative to performing duties (78) 2005

As indicated by the red shading, the Air Force generated 13 items with scores below the 50th percentile (representing below average performance), similar to 15 such items in 2005. Among these items, five items have moderately low scores of 40 or below, one of which has a low score below 20. Items with below average percentiles (<50) are potential target areas that can be used to determine improvement priorities. The below average priority items are listed below, from lowest to highest percentile score.

- Q42 Unit personnel assignment stability (19)
- Q30 Effectiveness of command safety officer in improving safety conditions (21) 2005
- Q11 Personnel believing that their actions can protect other personnel (22) 2005
- Q25 Personnel following lockout/tagout procedures (23) 2005
- Q7 Leadership stressing the importance of safety in communications (37) 2005
- Q1 Personnel identifying and eliminating hazards (41) 2005
- Q4 Personnel being involved in safety practices (44) 2005
- Q34 Leadership participating in safety activities on a regular basis (44) 2005
- Q43 Supervisors reducing personnel's fear of reporting safety problems (45) 2005
- Q35 Perception that the safety officer has high status (46) 2005

- Q49 Leadership setting annual safety goals (47) 2005
- Q8 Frequency of safety meeting occurrence (48) 2005
- Q28 Supervisors acting on personnel safety suggestions (48)

Figure 22
Percentile Scores of Safety Program Items - Air Force – 2007

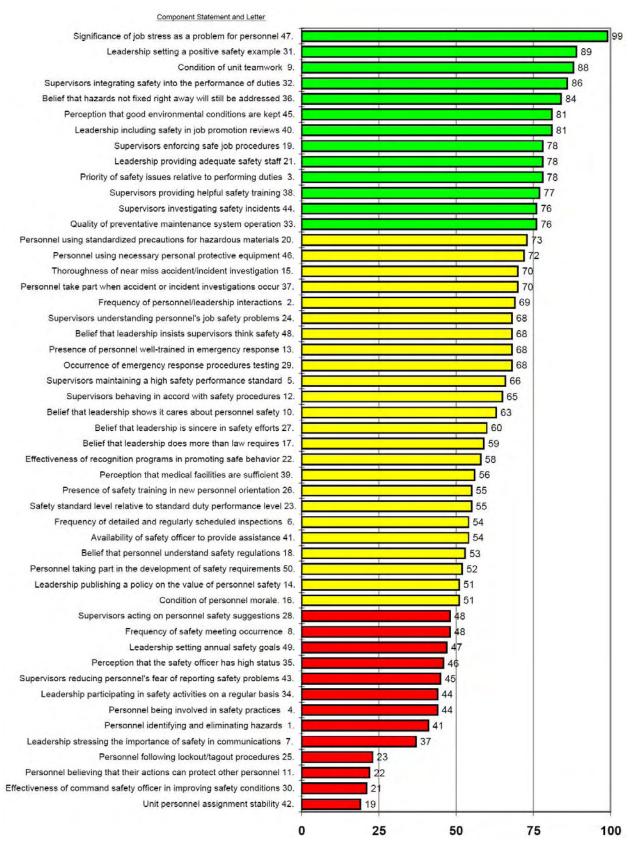


Figure 23 compares the Air Force results against all Active Duty respondents. For all six program categories and the overall score, the Air Force results are higher than the All Respondents results and above the database average of 50. The Air Force percentile scores range from a moderate score of 55 for Personnel Participation to a moderately high 73 for Supervisor Participation and Organizational Climate. Identical to its 2005 results, the overall Air Force percentile score is a moderately high 70, indicating that 30 percent of the database organizations achieved a higher overall score than did the Air Force.

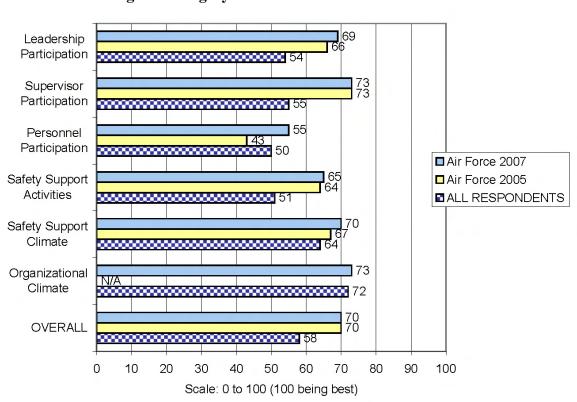


Figure 23
Program Category Percentile Scores - Air Force

Figure 24 compares the safety perceptions of the Air Force Active Duty grades according to program category. These grades are E1-E4, E5-E9, O1-O3, and O4-O6. Consistent with many organizations that have conducted the Safety Barometer, and Air Force's 2005 results, higher-ranking personnel report the most positive safety program perceptions overall and in all program categories, while lower-ranking personnel generate the least positive responses. O4-O6 and O1-O3 are very similar to each other and generated mostly high to very high percentile scores in the 80s and 90s. E5-E9 personnel tend to generate moderately high percentile scores in the 60s and 70s, and E1-E4 consistently generated the lowest, moderate scores. Relative similarity among

grade perceptions would indicate that the DoD safety program is uniformly administered across grades, while notable differences suggest that improved communication and increased contact among these groups may help to decrease the safety perception gap.

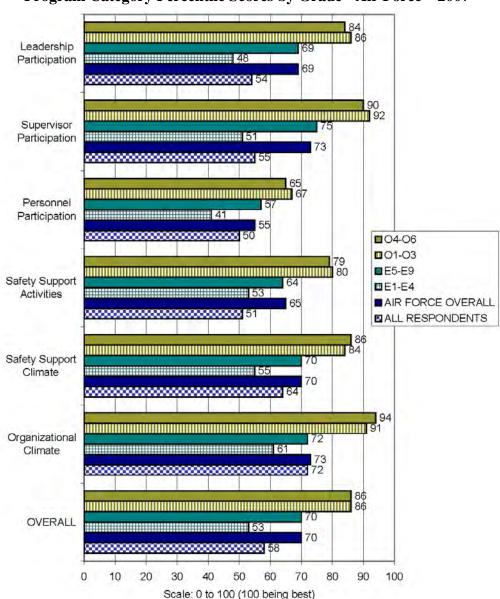


Figure 24
Program Category Percentile Scores by Grade - Air Force – 2007

Figure 25 compares the safety perceptions of seven Active Duty work locations according to program category. These work locations are Office, Shop, Maintenance, Outdoors/Field, Flightline, Clinic/Hospital, and Other. To avoid making inaccurate generalizations based on an inadequate or absent sample, specific results were not computed for the Ship category.

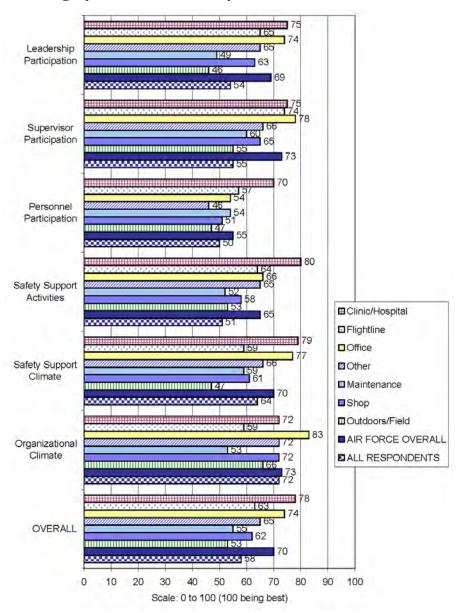


Figure 25
Program Category Percentile Scores by Work Location - Air Force – 2007

With the exception of Maintenance and Outdoors/Field, the remaining work locations generated above average scores for all categories and overall. Clinic/Hospital and Office personnel tended to report the most positive safety program perceptions, with generally above average to moderately high scores in the 60s and 70s. Flightline and Other staff results are relatively similar to each other, and exhibit mostly moderate to moderately high perceptions in the 50s and 60s. Maintenance and Outdoors/Field personnel consistently generated the lowest perceptions, with moderate percentile scores in the 40s and 50s. Relative similarity among work locations would indicate that the DoD safety program is uniformly administered across work locations, whereas dissimilarity may indicate disparity in the administration of the safety program.

## 4 Conclusions

#### 4.1 Overview

This report provides results of a survey of Active Duty personnel conducted in 2007, with comparisons to 2005 results. These results can be used to assess perceptions of Active Duty personnel regarding a variety of culture and activity-based items, to identify priority problem areas for specific action planning, and to analyze differences by grade, branch of Service, and work location. The data presented in this report can also be used as a baseline against which to continue measuring future progress and to quantify changes in perceptions regarding activity-based and culture-based issues in the future. Used on an on-going basis, the survey becomes a motivation to encourages safety related action and serves as an evaluation and planning tool.

#### 4.2 Path Forward

DoD Components should use these results as a catalyst and guide for making current safety program improvements. This report identifies lower-scoring priority items and problem areas for the organization as a whole and for various subgroups of personnel. Safety managers should examine the results and should use the following three-step process to:

- Investigate, discuss, and understand why the areas might have been identified as lower-scoring priorities by survey respondents;
- Decide whether attention to each candidate priority item aligns with broader cultural and strategic initiatives of the organization; and
- Select and implement specific action-oriented strategies as countermeasures within the organization.

In addition, in order to maximize use of survey results:

- A team or teams of personnel further study survey results and implement the three-step results interpretation process described above.
- Results interpretation team(s) should include personnel from all appropriate branches of Service, grades, and other demographic groups.
- Proposed action-oriented strategies developed by the results interpretation team(s) should be reviewed by high-level DoD leadership and implemented with clear support.
- Results of the action plans should be measured using appropriate indicators and reimplementation of the survey instrument.
- Feedback of survey results should be communicated to those identified in the survey population and to a wider distribution within DoD as appropriate

### 4.3 List of Report Conclusions

The safety program for Active Duty personnel received generally moderate ratings on the Safety Barometer survey, with almost half the 50 standard items scoring below average. Compared with responses from the 232 locations in the NSC database, Active Duty percentile scores for safety program categories ranged from a moderate 50 for Personnel Participation to a moderately high 72 for Organizational Climate. All of the six standard program categories have percentile scores at or above the average of 50, compared to only two above average categories in 2005. The overall Safety Barometer percentile score was a moderate 58 out of 100, meaning that 42 percent of the database organizations achieved a higher overall score than did Active Duty personnel. This is a slight improvement from the moderate score of 55 for DoD Active Duty in 2005.

Closer examination shows that Active Duty personnel scored at or above the 50th percentile for 28 of 50 standard items, a slight increase from 21 above average items in 2005. Three items generated high scores above 80. It is generally recommended that safety program items with percentiles less than 50 receive attention. These lowest scoring items may be used to establish improvement priorities. The 22 Safety Barometer items that generated below average percentile scores (<50) for Active Duty personnel are presented below from lowest to highest percentile score.

- Q25 Personnel following lockout/tagout procedures (20) 2005
- Q42 Unit personnel assignment stability (21)
- Q11 Personnel believing that their actions can protect other personnel (21) 2005
- Q7 Leadership stressing the importance of safety in communications (22) 2005
- Q30 Effectiveness of command safety officer in improving safety conditions (23) 2005
- Q43 Supervisors reducing personnel's fear of reporting safety problems (29) 2005
- O28 Supervisors acting on personnel safety suggestions (32) 2005
- Q34 Leadership participating in safety activities on a regular basis (37) 2005
- Q8 Frequency of safety meeting occurrence (40) 2005
- *O26* Presence of safety training in new personnel orientation (41) 2005
- *O1* Personnel identifying and eliminating hazards (41) 2005
- Q18 Belief that personnel understand safety regulations (42) 2005
- Q50 Personnel taking part in the development of safety requirements (43) 2005
- Q14 Leadership publishing a policy on the value of personnel safety (43) 2005
- Q49 Leadership setting annual safety goals (44) 2005
- Q41 Availability of safety officer to provide assistance (44) 2005
- Q6 Frequency of detailed and regularly scheduled inspections (46) 2005
- Q23 Safety standard level relative to standard duty performance level (47)
- Q27 Belief that leadership is sincere in safety efforts (47) 2005
- Q4 Personnel being involved in safety practices (48) 2005

- Q22 Effectiveness of recognition programs in promoting safe behavior (49)
- Q12 Supervisors behaving in accord with safety procedures (49)

For all six program categories and overall, higher-ranking grades continue to generate the most positive perceptions among Active Duty personnel, with clear pattern of increasingly positive safety perceptions with higher grades. For 2007, the O4-O6 category had a very high overall percentile score of 93 out of 100, improved from its high score of 84 in 2005. Similar to their moderately low score of 39 in 2005, those in the E1-E4 category have an overall percentile score of only 37 in 2007.

Dissimilarities in perceptions among work locations were found, with those in Clinic/Hospital and Flightline continuing to have the most positive perceptions (overall scores of 86 and 71, respectively). Those in Shop and Outdoor/Field have the least positive perceptions, with overall scores of 43 and 35, respectively, which reflect percentile score decreases since 2005.

Branch of Service analyses show that the Navy and Air Force again generated the most positive safety program perceptions, with moderately high overall percentile scores of 71 and 70, respectively. Marine Corps results continue to be moderate, with an overall score of 55. The Army respondents had the least positive perceptions, but improved the most since 2005, increasing 8 percentile points from a moderately low overall score of 35 in 2005 to a moderate 43 in 2007.

The results in this report are a guide for making safety program improvements. The data presented in this report can also be used as a baseline against which to continue measuring future progress. Communicating results of the survey and involving personnel in the decision-making process are fundamental aspects of any successful safety program.

# Appendix A – SecDef Memo – Zero Preventable Accidents



#### THE SECRETARY OF DEFENSE 1000 DEFENSE PENTAGON WASHINGTON, DC 20301-1000

MAY 30 2007

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
CHAIRMAN OF THE JOINT CHIEFS OF STAFF
UNDER SECRETARIES OF DEFENSE
ASSISTANT SECRETARIES OF DEFENSE
GENERAL COUNSEL OF THE DEPARTMENT OF DEFENSE
DIRECTOR, OPERATIONAL TEST AND EVALUATION
INSPECTOR GENERAL OF THE DEPARTMENT OF DEFENSE
ASSISTANTS TO THE SECRETARY OF DEFENSE
DIRECTOR, ADMINISTRATION AND MANAGEMENT
DIRECTOR, PROGRAM ANALYSIS AND EVALUATION
DIRECTOR, NET ASSESSMENT
DIRECTORS OF THE DEFENSE AGENCIES
DIRECTORS OF THE DOD FIELD ACTIVITIES

SUBJECT: Zero Preventable Accidents

I am committed to reducing preventable accidents as one of the cornerstones of the Department of Defense's Safety Program. Consistent with the President's Safety, Health, and Return-To-Employment (SHARE) initiative, I have set some very specific mishap reduction goals for the Department. We are focused on closely monitoring our most pressing mishap areas: civilian and military injuries, aviation accidents, and the number one noncombat killer of our military, private motor vehicle accidents.

We can no longer tolerate the injuries, costs, and capability losses from preventable accidents. Accidents cost the Department about \$3 billion per year, with indirect costs up to four times that amount. We have made progress in reducing aviation accidents and civilian lost work days, but have much more to do to address military injuries and private motor vehicle fatalities. Our goal is zero preventable accidents, and I remain fully committed to achieving the 75% accident reduction target in 2008.

The current focus of our Safety Council is on increasing the accountability of individuals and leaders, as well as pursuing safety technologies. Accountability and leadership are key to an effective safety program. I urge you to continue to emphasize safety in the workplace and hold leaders accountable for their safety programs. Your efforts will make the Department a safer place to work, and more capable of defending the Nation and her interests. We have no greater responsibility than to take care of those who volunteer to serve.

G

OSD 07979-07

# **Appendix B – Scope and Methodology**

**Scope.** This is part of the biennial report by the DoD Office of Inspector General (DoD OIG) documenting perception survey results. The purpose of this report was to evaluate the DoD Active Duty members' perception of safety, and compare to 2005 survey results. The survey was designed and administered with the support of the National Safety Council (NSC).

**Work Performed.** The DoD OIG safety evaluation team, in conjunction with the NSC, designed, developed, and analyzed results of the DoD safety perception surveys. The NSC administered the senior leader survey (see report IE 2008-006), and the Defense Manpower Data Center (DMDC) administered the safety perception survey. The safety perception survey process began on 04/06/2007. DMDC mailed notification letters to 65,965 DoD Active Duty Personnel. The letter explained how and why the survey was being conducted, how information would be used, and why participation was important. Additional reminders were sent to encourage participation. DMDC collected data via the Web between 4/23/07 and 5/29/07.

DMDC employed single-stage, non-proportional stratified random sampling procedures, drawing the population of 65,965 individuals from their Active Duty Data File. Respondents were disqualified if they left DoD due to separation, transfer, retirement, termination, death, or promotion within the preceding six months. Completed surveys (50 percent or more items answered) were received from 20,175 eligible respondents. The weighted response rate was 30.6 percent.

The DoD OIG, with assistance from the NSC, analyzed the results and produced charts, tables, and this report. Also, the DoD OIG has provided a series of results briefings to senior leaders within the Office of the Secretary of Defense, Service staff offices, Service Secretariats, Service Safety Centers, and others. These briefings were part of the OIG's constructive engagement process to provide DoD leaders with timely safety information as it was identified.

All survey questions were reviewed by DoD OIG Inspections & Evaluations and vetted through:

- The National Safety Council
- The Defense Manpower Data Center
- The DoD OIG Quality Management Division

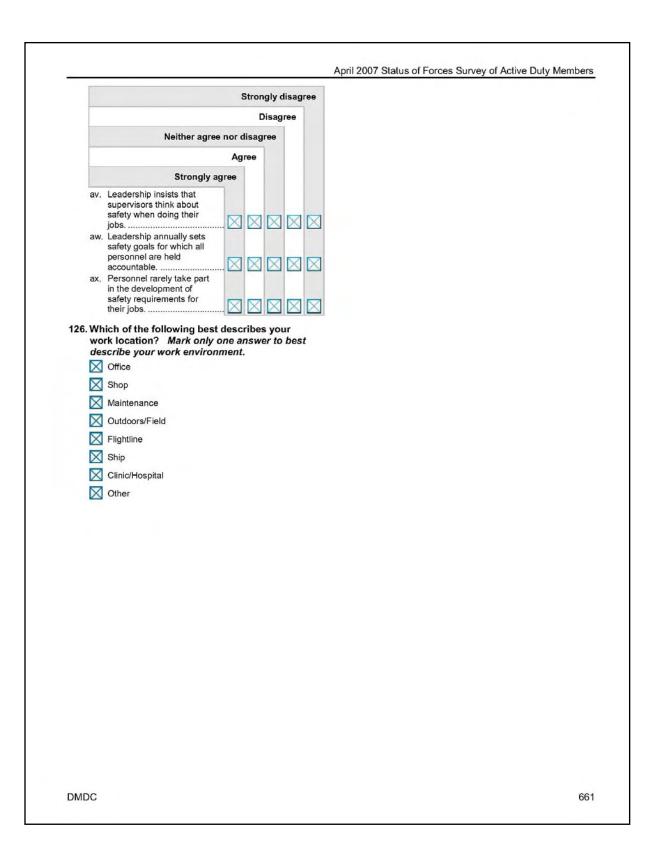
This report is intended to provide the Office of the Secretary of Defense a general program analysis. Detailed analysis of Service, Defense Agencies, or other DoD subordinate organization safety programs is beyond the scope and intent of this report.

The OIG evaluation team performed the evaluation in accordance with the *Quality Standards for Inspections*, the President's Council on Integrity and Efficiency, January 2005.

# **Appendix C – Safety Barometer Survey Form**

SAFETY (MODULE C)						
gree with each	ow much do you agree or disagre the following statements?					
Strongly disagree	Str					
Disagree						
disagree	Neither agree nor dis					
gree	Agre					
	Strongly agree					
	It is common for personnel	a.				
	to take part in identifying and eliminating worksite hazards					
	There is frequent contact	b.				
	and communication between personnel and					
	leadership					
	to performing duties					
	involved in developing or					
	revising safety practices  My supervisor maintains a					
	high job safety standard					
	base and facilities are					
	made at regular, frequent intervals					
	Leadership's views on the importance of safety are					
	seldom stressed in personnel					
	communications					
	less often than they should					
	be					
	within our unit					
	cares about personnel					
	safety					
	other personnel through my actions while on duty					
	My supervisor's behavior	1.				
	procedures					
	well trained in emergency-					
	response related procedures, including					
	evacuation					
	a written policy that					
	expresses their attitude about personnel safety					
		0.				
	investigated					

			Stron	gly	lisag	ree				Stror	ngly d	lisag	ree
				Disag	ree						Disag	ree	
	Neither agree	nor o	disag	ree				Neither agree	nor c	lisag	ree		
		Ag	ree						Ag	ree			
	Strongly ag	ree	1					Strongly a	gree	1			
p.	Morale among personnel						ag.	The system of preventive					
	in my unit is poor Leadership does no more than the law requires to				X			maintenance for facilities, tools, and machinery operates poorly.				$\boxtimes$	D
r.	keep personnel safe	$\boxtimes$		$\boxtimes$	$\boxtimes$		ah.	Leadership regularly participates in safety					
	regulations relating to my duties.		X		X	$\boxtimes$		programs and committee activities.		$\boxtimes$	$\boxtimes$	$\times$	D
S.	My supervisor enforces safety procedures.	$\boxtimes$	$\boxtimes$	$\boxtimes$	$\boxtimes$	$\boxtimes$	ai.	have high status in this					5
t.	Standardized precautions are used by personnel who deal with hazardous	-					aj.	unit					V
u.	materialsLeadership has provided	$\boxtimes$	X		X		ak.	are often ignored Personnel take part when	🖂	$\boxtimes$		$\times$	2
	adequate personnel to manage and support its							accident or incident investigations occur	🖂	$\boxtimes$	$\boxtimes$	$\boxtimes$	0
v.	Awards and recognition programs used in this unit						al.	The training provided through my supervisor helps me do my duties					K
	are not good at promoting safe behavior.						am.	safely Medical facilities are	🗵	$\times$		$\times$	2
W.	Job performance standards are higher for professional duties than							sufficient for treating the injuries that occur in my unit				$\boxtimes$	D
x.	for safety						an.	It is well known that leadership ignores a					
	understands the safety problems I face		X			$\boxtimes$		person's safety performance when					5
	Personnel follow a regular lockout/tagout procedure		X		$\boxtimes$	$\boxtimes$	ao.	determining promotions The safety officer is readily available to provide advice					K
Z.	Safety training is part of every new personnel orientation						ар.	and assistance	🖂	$\boxtimes$	$\boxtimes$	$\boxtimes$	2
aa.	I believe leadership is sincere in its efforts to							personnel to my unit is stable		$\boxtimes$	$\boxtimes$	$\boxtimes$	
ab.	ensure personnel safety My supervisor seldom acts on personnel safety						aq.	Personnel are afraid to report safety problems to their supervisors.				$\boxtimes$	D
ac.	suggestions Emergency response-	$\boxtimes$	X		$\boxtimes$		ar.	My supervisor always investigates safety					_
	related procedures are almost never tested to						as.	Ventilation, lighting, noise, and other environmental	. 🛆				L
ad	make sure they are working	$\boxtimes$	$\boxtimes$	$\boxtimes$	$\boxtimes$			conditions are kept at good levels		X		$\times$	D
uu.	safety officer improves safety conditions in my		X				at.	A lot of personnel don't use the personal protective equipment					
ae.	Leadership sets a positive safety example through							necessary to do their jobs safely	. 🖂	$\boxtimes$		$\boxtimes$	0
af.	their words and actions My supervisor has successfully fit safety into			N.			au.	The stress of performing my armed service duties is a significant problem for					
	performance of duties	$\boxtimes$	$ \times $	X	$\times$			me and other personnel in my unit	X	X	X	X	0



### Appendix D – Safety Barometer Question Number Key

In the 2005 Safety Barometer, DoD substituted 4 standard survey items with customized items. The standard NSCs Safety Barometer items previously removed were then included in 2007, while no custom items were included. Because of these changes, each statement may not be assigned the same question letter across survey years. In order to compare data across the two survey years and in the future, a standard NSC numbering system will be used in presenting the data. The question number key below provides a cross reference between the NSC numbers used in the Results Report and the question lettering in two Safety Barometer surveys.

#### **Question Number Key for DoD Safety Barometer Forms**

Category	Statement (short form, as found in Results Report	NSC Question Number		Letter on Form
Category	tables and figures)	Report & Appendices	2005 Survey	2007 Survey
PP	Personnel identifying and eliminating hazards	1	A	A
OC	Frequency of personnel/leadership interactions	2	В	В
SSC	Priority of safety issues relative to performing duties	3	С	С
PP	Personnel being involved in safety practices	4	D	D
SP	Supervisors maintaining a high safety performance standard	5	Е	Е
SSA	Frequency of detailed and regularly scheduled inspections	6	F	F
LP	Leadership stressing the importance of safety in communications	7	G	G
SSA	Frequency of safety meeting occurrence	8	Н	Н
OC	Condition of unit teamwork	9	I	I
SSC	Belief that leadership shows it cares about personnel safety	10	J	J
PP	Personnel believing that their actions can protect other personnel	11	K	K
SP	Supervisors behaving in accord with safety procedures	12	L	L
SSA	Presence of personnel well-trained in emergency response	13	M	M
LP	Leadership publishing a policy on the value of personnel safety	14	N	N
SSA	Thoroughness of near miss accident/incident investigation	15	0	0
OC	Condition of personnel morale.	16	n/a	P
SSC	Belief that leadership does more than law requires	17	P	Q
PP	Belief that personnel understand safety regulations	18	Q	R

SP	Supervisors enforcing safe job procedures	19	R	S
PP	Personnel using standardized precautions for hazardous materials	20	S	Т
LP	Leadership providing adequate safety staff	21	T	U
SSA	Effectiveness of recognition programs in promoting safe behavior	22	U	V
SSC	Safety standard level relative to standard duty performance level	23	V	W
SP	Supervisors understanding personnel's job safety problems	24	W	X
PP	Personnel following lockout/tagout procedures	25	X	Y
SSA	Presence of safety training in new personnel orientation	26	Y	Z
SSC	Belief that leadership is sincere in safety efforts	27	Z	AA
SP	Supervisors acting on personnel safety suggestions	28	AA	AB
SSA			AB	AC
SSA	Effectiveness of command safety officer in improving safety conditions		AC	AD
LP	Leadership setting a positive safety example	31	AD	AE
SP	Supervisors integrating safety into the performance of duties	32	AE	AF
SSA	Quality of preventative maintenance system operation	33	AF	AG
LP	Leadership participating in safety activities on a regular basis	34	AG	AH
SSC	Perception that the safety officer has high status	35	АН	AI
SSC	Belief that hazards not fixed right away will still be addressed	36	AI	AJ
PP	Personnel take part when accident or incident investigations occur	37	AJ	AK
SP	Supervisors providing helpful safety training	38	AK	AL
SSC	Perception that medical facilities are sufficient	39	n/a	AM
LP	Leadership including safety in job promotion reviews	40	AL	AN
SSA	Availability of safety officer to provide assistance	41	AM	AO
OC	Unit personnel assignment stability	42	n/a	AP
SP	Supervisors reducing personnel's fear of reporting safety problems	43	AN	AQ
SP	Supervisors investigating safety incidents	44	AO	AR
SSC	Perception that good environmental conditions are kept	45	AP	AS
PP	Personnel using necessary personal protective equipment	46	AQ	AT

OC	Significance of job stress as a problem for personnel	47	n/a	AU
SSC	Belief that leadership insists supervisors think safety	48	AR	AV
LP	Leadership setting annual safety goals	49	AS	AW
PP	Personnel taking part in the development of safety requirements	50	AT	AX
CUS	Stress level/operations tempo increasing accidents off-duty	n/a	AU	n/a
CUS	Off-duty vehicular accidents due to bad decisions, not safety training	n/a	AV	n/a
CUS	DoD's responsibility concerning off-duty safety	n/a	AW	n/a
CUS	Supervisor concern for personnel safety off-duty	n/a	AX	n/a

 $Categories: LP=Leadership\ Participation,\ SP=Supervisor\ Participation,\ PP=Personnel\ Participation,\ SSA=Safety\ Support\ Activities,\ SSC=Safety\ Support\ Climate,\ OC=Organizational\ Climate,\ CUS=Customized\ Items.$ 

n/a: Does not apply.

### **Appendix E – Methodologies and Data Analysis**

The NSC Safety Barometer elicits personnel opinions about a broad spectrum of items or elements that contribute to successful safety management. These elements include executive leadership, supervisory and personnel participation, safety support procedures, processes, the safety climate, and the overall organizational climate.

#### **Safety Barometer Background**

The content of the Safety Barometer Survey Form (Appendix C) is distilled from a variety of sources, such as the compilation of importance ratings of safety program practices by top safety professionals, reviews of research comparing safety program items of organizations with high versus low injury rates, analyses of the best National Safety Council member safety programs, and examinations of numerous safety program survey and audit questionnaires. The utility of the format was verified through testing at more than 100 public and private organizations throughout the United States.

#### **Results Interpretation**

The Safety Barometer results in this part reflect the views of Department of Defense active duty personnel. The results represent the perceptual context within which the safety program and those who manage it are viewed by its personnel. Accordingly, where the Safety Barometer indicates problems, we suggest that each problem be verified, its nature defined, and the management system inadequacies that produce each problem be located and eliminated.

#### **Administration Process**

Active duty personnel participated in the Safety Barometer survey in spring 2007. The Safety Barometer was administered as part of a periodic on-line survey conducted by DoD's Defense Manpower Data Center. Data collected through this process were forwarded to the National Safety Council for initial analysis.

#### **Safety Barometer Content**

The Safety Barometer survey asked respondents to indicate their level of agreement with statements regarding a variety of safety and job-related topics. These statements described activities or conditions related to the operation of DoD's safety program. The majority of statements presented either a positive or negative description, as follows:

- ◆ **Positive:** Describes a condition, attitude or practice that can be considered conducive to safety
- ◆ **Negative:** Describes a condition, attitude or practice that can be considered detrimental to safety

Respondent agreement with a positive statement or disagreement with a negative statement has a positive safety implication for the DoD program. Disagreement with a positive statement or agreement with a negative description has a negative implication.

In the table below, Safety Barometer statements that address related program items are grouped into six standard program categories (see Appendix D for cross-reference of numbering schemes). Together, they present a comprehensive overview of the DoD's safety program.

**SAFETY BAROMETER Statement Groupings by Program Category** 

Program Category	Survey Statements: NSC Number (DoD 2007 Letter)
Leadership Participation	7(G), 14(N), 21(U), 31(AE), 34(AH), 40(AN), 49(AW)
Supervisor Participation	5(E), 12(L), 19(S), 24(X), 28(AB), 32(AF), 38(AL), 43(AQ), 44(AR)
Personnel Participation	1(A), 4(D), 11(K), 18(R), 20(T), 25(Y), 37(AK), 46(AT), 50(AX)
Safety Support Activities	6(F), 8(H), 13(M), 15(O), 22(V), 26(Z), 29(AC), 30(AD), 33(AG), 41(AO)
Safety Support Climate	3(C), 10(J), 17(Q), 23(W), 27(AA), 35(AI), 36(AJ), 39(AM), 45(AS), 48(AV)
Organizational Climate	2(B), 9(I), 16(P), 42(AP), 47(AU)

The first three categories focus on the specific activities of the main personnel groups that must function effectively if programs are to be successful:

- ♦ Leadership Participation items describe ways in which top and middle leadership demonstrates their leadership and commitment to safety in the form of words, actions, organization, and control.
- ◆ Supervisory Participation items consider six primary roles through which supervisors communicate their personal support for safety: leader, manager, controller, trainer, organizational representative, and advocate for personnel.
- ♦ **Personnel Participation** items specify selected actions and reactions that are critical to making a safety program work. Emphasis is given to personal responsibility and compliance.

The fourth category concerns activities frequently found in successful programs:

♦ Safety Support Activities items probe the presence or quality of various safety program practices. These focus on communications, training, inspection, maintenance, and emergency response.

The remaining two categories consider personnel perceptions of the organizational climate and values that govern leadership's mode of operation:

- ♦ **Safety Support Climate** items ask personnel for general beliefs and impressions about leadership's commitment and underlying philosophy with regard to safety.
- ♦ Organizational Climate items probe general conditions that affect the ultimate success of the safety program. These include such factors as teamwork and communication.

#### **National Safety Council Database**

The DoD-Active Duty Safety Barometer survey results were compared with those of respondents within the National Safety Council (NSC) database. The NSC database used for this analysis has been compiled from over 230 organizations (both public and private) that have completed the Safety Barometer. NSC database comparisons enable an organization to evaluate its personnel assessments in relation to those of other Safety Barometer users. The NSC database does not represent a random sample of organizations nor does it reflect only the top performers in safety. Even so, Safety Barometer results from organizations with a similar need and/or desire to involve personnel directly in the examination of their safety programs offer an external gauge against which to judge DoD's perceived performance.

#### **Data Analyses**

Responses to the active duty survey items with positive descriptions were scored as follows:

+2 = Strongly Agree +1 = Agree 0 = No Opinion -1 = Disagree -2 = Strongly Disagree

Responses to statements with negative descriptions were scored oppositely.

- ♦ An **average response score** was produced for each statement by computing the average score for all respondents in the group.
- ♦ Each **program category average response score** was computed by averaging the average response scores for the statements which comprise each of the six standard and one Customized program categories as shown in the previous table.

Average response and program category average response scores were compared with scores from the NSC database. Comparative percentile scores for each Safety Barometer statement were computed by calculating the percentage of establishments in the NSC database with lower average response scores. Percentiles range from 0 to 100, with 100 representing the highest score in the database and 0 representing the lowest.

# Appendix F – Response Distributions by Grade

		by XPA	AYGRP2 In	nputed		+	+	+-	
Paygrade Group 2 - 5	levels				+ Column	428853	517630	18141	107714
Count					92857 1165195 Total	36.8	44.4	1.6	9.2
Col Pct   I	E1-E4 E	5-E9 V	√1-W5 (	01-03	8.0 100.0				
Row					Number of Missing	Observation	ıs: 13921	.1	
5   Total	1	2	3	4					
		+-	+	+	- Q3 Safety takes a	book goot	to produc	tion by	VDAVGDD2
	91253	138080	5479	22074	Imputed Paygrade G			ction by	XPAIGRP2
34478   291364 Strongly agree	21.4	26.6	28.5	20.4					
37.2 25.0		+-	+	+	- Count	  E1-E4	E5-E9	W1-W5 C	01-03 04-
+ 2	216160	271801	11292	64954	06	1			
44425  608633 Agree	50.8	52.5	58.7	60.1	Row	. 1 1	2	3	4
47.9   52.3			·	+	5   Total - 03				+
+	94444	84003	2193	17977	+ 1				2250
10679  209296					1771  54941				
No opinion   11.5  18.0	22.2	16.2	11.4	16.6	Strongly agree 1.9   4.7	6.6	4.4	2.7	2.1
+	+-				+			+-	
4   2675  45348	19614	19831	277	2952	4763  140646	55495	69545	1514	9329
Disagree   2.9  3.9	4.6	3.8	1.4	2.7	Agree 5.2  12.1	13.0	13.5	7.9	8.7
		+-	+	+		+	+	+-	
5	4396	4410		41	. 3	132056	110674	3691	21681
418   9265 Strongly disagre	1.0	.9	-	.0	12413  280515 No opinion	31.0	21.5	19.3	20.1
.5  .8		+-	+	+	13.5   24.2	+	+	+-	
+ Column	425866	518126	19241	107998	+	149334	215665	9846	55357
92676 1163907 Total	36.6	44.5	1.7	9.3	53393  483594 Disagree	35.1			51.4
8.0 100.0	30.0	11.0		3.3	58.0   41.7				
Number of Missing Obs	servations	140500	)		+				
					19682  199817	60808			19027
					Strongly disagre 21.4   17.2				17.7
Q2 Frequent contact Imputed Paygrade Grou			and 1 by	y XPAYGR	+	+	+	+-	
					Column 92022 1159514	425629	515124	19094	
Count								13034	107644
	E1-E4 F	:5-E9 1	v1-w5 (	01-03	Total	36.7	44.4	1.6	107644 9.3
06	E1-E4 E	5-E9 V	v1-W5 (	01-03	7.9 100.0			1.6	
						Observation	ns: 14489	1.6	
06   Row   5   Total	1	2	3	4	7.9 100.0	Observation	ns: 14489	1.6	
06   Row   5   Total   Q2  +	1	2	3	4	7.9 100.0  Number of Missing	Observation	ns: 14489	1.6	9.3
06 Row   Solution   Row   Solution   Row   Solution   Row   Solution   Row   R	1   +- 69623	2   	3   + 4054	4	7.9 100.0  Number of Missing	Observation	ns: 14489	1.6	9.3
O6 Row   Solution   Row   Solution   Row   Solution   Row   Solution   Row   R	1   +- 69623	2   	3   + 4054	4	7.9 100.0  Number of Missing	Observation	health plevels	1.6	9.3 y XPAYGRP2
06 Row   Solution   So	1   +- 69623	2   	3   	4   + 21120  19.6	7.9 100.0  Number of Missing	Observation	health plevels	1.6	9.3 y XPAYGRP2
06   Row	1    69623  16.2	2   107075  20.7	3   + 4054  22.3	4   21120  19.6	7.9 100.0  Number of Missing	Observation	health plevels	1.6	9.3 y XPAYGRP2
06   Row	1   69623  16.2	2   107075  20.7  265853	3   	4   21120  19.6  + 62579	7.9 100.0  Number of Missing	Observation	health plevels	1.6	9.3 y XPAYGRP2 D1-03 04-
06   Row	1   	2   107075  20.7  265853  51.4	3   + 4054  22.3  + 11071  61.0	4   21120  19.6  + 62579  58.1	7.9 100.0  Number of Missing	Observation	: health plevels E5-E9	1.6  3  bractic by  W1-W5 (	9.3 y XPAYGRP2 D1-03 04-
06   Row	1   69623  16.2  	2   107075  20.7  265853  51.4	3   4054  22.3  + 11071  61.0	4   + 21120  19.6  + 62579  58.1	7.9 100.0  Number of Missing	Observation	health plevels  E5-E9	1.6	9.3 y XPAYGRP2 D1-03 04-
06	1   	2   107075  20.7  265853  51.4	3   4054  22.3  	4   + 21120  19.6  + 62579  58.1	7.9 100.0  Number of Missing	Observation  se safety 8 roup 2 - 5	2 health F levels E5-E9 2   61369	1.6	9.3  y XPAYGRP2  D1-03 04-  4    9721
06   Row	1   69623  16.2  	2   107075  20.7  + 265853  51.4  + 80019  15.5	3   4054  22.3  + 11071  61.0  + 2022  11.1	4   21120  19.6  62579  58.1  17864  16.6	7.9 100.0  Number of Missing	Observation  se safety 8 roup 2 - 5	2 health plevels  E5-E9  2   61369  12.0	1.6  3  wractic by  W1-W5 (  3    1728   9.0	9.3  y XPAYGRP2  D1-03 04-  4    9721
06   Row	1   + 69623  16.2  + 191763  44.7  + 106113  24.7	2   107075  20.7  + 265853  51.4  80019  15.5	3   4054  22.3  + 11071  61.0  + 2022  11.1	4   21120  19.6  62579  58.1  17864  16.6	7.9 100.0  Number of Missing	Observation  se safety & roup 2 - 5    E1-E4    1     1	2   61369  12.0	1.6  practic by  W1-W5 (  3    1728   9.0	9.3  y XPAYGRP2  D1-03 04-  4    9721   9.1
06	1   69623  16.2  	2   107075  20.7  + 265853  51.4  + 80019  15.5  +	3   4054  22.3  + 11071  61.0  + 2022  11.1  922	4   21120  19.6  62579  58.1  17864  16.6	7.9 100.0  Number of Missing	Observation	2 health F levels  E5-E9  2   61369  12.0	1.6  practic by  W1-W5 (  3    1728   9.0   9237	9.3  y XPAYGRP2  D1-03 04-  4    9721   9.1   54084
O6	1   69623  16.2 + 191763  44.7 + 106113  24.7 + 41185  9.6	2   107075  20.7  	3   4054  22.3  	4   21120  19.6  62579  58.1  17864  16.6  5244  4.9	7.9 100.0  Number of Missing	Observation  se safety 8 froup 2 - 5    E1-E4	2 health Flevels  E5-E9  2    61369  12.0   227088  44.4	1.6  3	9.3  y XPAYGRP2  D1-03 04-  4    9721   9.1   54084   50.7
06   Row	1   69623  16.2  	2   107075  20.7  + 265853  51.4  80019  15.5  + 47604  9.2	3   4054  22.3  11071  61.0  2022  11.1  922  5.1	4   21120  19.6  62579  58.1  17864  16.6  5244  4.9	7.9 100.0  Number of Missing	Observation  se safety 8 roup 2 - 5    E1-E4	2 health plevels  E5-E9  2   61369  12.0  227088  44.4	1.6  3  wractic by  W1-W5 (  3    1728   9.0   9237   48.3	9.3  y XPAYGRP2  D1-03 04-  4    9721   9.1   54084   50.7
06   Row	1   69623  16.2 + 191763  44.7 + 106113  24.7 + 41185  9.6	2   107075  20.7  + 265853  51.4  80019  15.5  + 47604  9.2	3   4054  22.3  11071  61.0  2022  11.1  922  5.1	4   21120  19.6  62579  58.1  17864  16.6  5244  4.9	7.9 100.0  Number of Missing	Observation  se safety 8 froup 2 - 5    E1-E4	2 health plevels  E5-E9  2   61369  12.0  227088  44.4	1.6  3  wractic by  W1-W5 (  3    1728   9.0   9237   48.3	9.3  y XPAYGRP2  D1-03 04-  4    9721   9.1   54084   50.7
06   Row	1   69623  16.2  191763  44.7  106113  24.7  41185  9.6	2   107075  20.7  265853  51.4  80019  15.5  47604  9.2	3   4054  22.3  + 11071  61.0  + 2022  11.1  922  5.1  + 72	4   21120  19.6  62579  58.1  17864  16.6  4.9	7.9 100.0  Number of Missing	Observation  se safety 8 roup 2 - 5    E1-E4	2   61369  12.0  227088  44.4	1.6  23  27  27  27  28  29  29  48  3    92  48  6469	9.3  y XPAYGRP2  D1-03 04-  4    9721   9.1   54084   50.7   32186

	+-			+-		
6425  125682 Disagree 6.9  10.9	İ	12.9	53372	7.3	9.5	
+	+-			+-		
693  29314	5	14917	12939	297	468	
Strongly dis. .7  2.5					.4	
+	+-			+-		
Co. 92531 1151590	lumn	422330	511013	19118	106599	
	otal	36.7	44.4	1.7	9.3	
Number of Miss	ing Obs	ervations	: 152816			

Q5 Supervisor maintain high safety standard by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

Count Col Pct O6	  E1-E4 E	5-E9 W	11-W5 C	1-03 04-
	1	2	3	4
5   Total 05	+	+-	+-	
	75868	124036	3672	23925
35003  262504 Strongly agree 37.9  22.7				22.4
+	178028			
43.2 45.9	41.8			56.7
+	130520			
16.9 25.1	30.7			18.8
+	+   25425			
943   48235 Disagree 1.0   4.2	6.0	3.8	2.7	1.6
+	+	+-		
	15929	7736	81	607
Strongly disagre				.6
+				
Column 92431 1158150	425771	513904	19264	106781
	36.8	44.4	1.7	9.2
Number of Missing Ol	bservations	: 146256		

Q6 Inspections made at regular intervals by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

  E1-E4	E5-E9	W1-W5	01-03 04-
1	2	3	4
+	++	+	
45110	65118	1182	11191
•			,
10.8	12.7	6.2	10.5
+	++	+	
162592	204220	7513	52952
38.8	40.0	39.1	49.7
	1	1   2   +	1   2   3   ++   45110  65118  1182    10.8  12.7  6.2

	+-			+-	+
+	3	157724	187481	6328	36558
28790   416882 No opinion 31.3   36.3			36.7		
+			40860		E100
4382   93310					'
Disagree 4.8  8.1			8.0		'
+	+-	+-		+-	
	5	14971	13481	415	559
Strongly disagr	re	3.6	2.6	2.2	.5
	+	+-	+	+-	+
+ Colum 91946 1148267	nn	419506	511160	19205	106449
	al	36.5	44.5	1.7	9.3

Number of Missing Observations: 156140

 $\ensuremath{\mathtt{Q7}}$  Leadership safety views seldom communict by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

06	Count Col Pct	  E1-E4	E5-E9	W1-W5	01-03 04-
	Row	1	2	2 1	4
5   T					+
+	1				4454
1990  6 Strongl 2.2	y agree 5.9				4.2
+ 11785  2	2				13491
Agree 12.8	21.6				12.6
+	3				26085
13518  3 No opin 14.7	ion 29.2				24.4
+	4				50910
52077  3 Disagre 56.7	ee 33.0				47.7
+	5				11819
12505  1 Strongl 13.6	y disagre 10.2				11.1
+					106750
91874 11	.45609 Total	418239 36.5			
8.0 1	.00.0		45056		

Number of Missing Observations: 158798

Q8 Safety meetings held less often than nec  $\,$  by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

	Count Col Pct	  E1-E4	E5-E9	W1-W5	01-03	04-
06		1				
	Row		1 2	l a	4	ı
5   08	Total			3 -+	•	
+	1	1589	0   2718	1  545	1477	
895  Stron 1.0	45988 gly agree 4.0	3.	8  5.	3  2.9	1.4	

+		++-		+-	+
9148   188640	2	75766	86791	3576	13358
Agree 10.0  16.4		18.0	·		
+					
41625  441696	3	159296	200940	6587	33249
No opinion 45.4  38.5		37.9			
+					
29998  351010	4	123286			
Disagree 32.7  30.6		29.3			43.5
+	5	46614			
9969  121125 Strongly disa					
10.9  10.5					
+ Col		420854			
91636 1148459		36.6			
8.0 100.0					
Number of Missi					
Q9 Good teamwo Paygrade Group			n unit by	y XPAYGR	22 Imputed
	nt	  E1-E4 E	e eo w	1 WE O	1 03 04
06	PCL	F1-F4 E	.5-E9 W.	1-W5 O.	1-03 04-
Row		1 1	2 1	2 I	4
5   Total					±   +
+		56008			
18027  182870 Strongly agre					
19.5  16.0					+
+	2	163059	243824	11132	61517
46824  526356					

Col 1	Pct	E1-E4	E5-E9	W1-W5	01-03	04-
Row		   1	2	3	4	
5   Total Q9		++				
+	1	56008	85963	3998	18873	
18027   182870 Strongly agree 19.5   16.0		13.4				
+		163059				
46824   526356 Agree 50.7   45.9		39.0				
+		125557		,		
23090   280230 No opinion 25.0   24.4		30.0				
+		38585				
3585  100192 Disagree 3.9  8.7		9.2	10.0	3.2	6.0	
+		++				
854  56672					1258	
Strongly disas		8.4				
+ Colv		418216	E10E12	10205	106005	
92379 1146319						
8.1 100.0	tal	36.5	44.5	1.7	9.2	
Number of Missi	ng 01	bservation	s: 15808	7		

Q10 Leadership shows that it cares about saf  $\,$  by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

06		ount 1 Pct		4	E5-	-E9	W1-	W5	01	-03	04-
	Row										
5	Total			1	1	2		3		4	

Q10	-+	+	+-	+	
	59661	106951	4325	22993	
36312   230242 Strongly agree 39.6   20.1	14.3				
+	+		+-		
41211   555587	187808	255800	11302	59466	
Agree 44.9 48.5	45.0	·		•	
+					
3 11598  259943	117779	106684	2782	21099	
No opinion 12.6   22.7	28.2				
+	+		+-		
2393   61922	30856	26483	555	1634	
Disagree 2.6  5.4	7.4				
+					
5 236  38034	21478	15250	240	830	
Strongly disagre	5.1				
+	+		+-		
Column 91750 1145728	417582	511168	19205	106022	
	36.4	44.6	1.7	9.3	
Number of Mindows	Na +	150670			

Number of Missing Observations: 158678

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Q11 My actions can protect other personnel by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

Count Col Pct O6	  E1-E4	E5-E9 W	71-W5 C	01-03 04-
Row	1	2	2	4
5   Total 011		·		+
+	111193			
42083  352188 Strongly agree 45.7  30.7	26.6	31.9	34.5	
	221479			·
44085  627400 Agree 47.9  54.7	52.9	·		
+	78041			10486
5332 152564	18.6	11.3	6.0	9.9
+	3287			376
506  7716 Disagree .5  .7	.8	.7	1.1	.4
+				
7048	4529	·		
Strongly disagre		·		.2
+	418529			·
92007 1146916	36.5			

Number of Missing Observations: 157491

Q12 My supervisors behavior is unsafe by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

Count

06	Col F	ct	E1-E4	E5-E9	W1-W5	01-03	04-
00	Row		I				
5 I	Total		1	2	3	4	
Q12			+		+	+	
+		1	10968	12279	50	759	
	24812 glv agree		2.6	2.4	1 .3	.71	
.8			+				
+							
2572		2	39241	37907	695	4303	
Agree 2.8			9.4	7.4	3.6	4.1	
	7.4		+		+	++	
+		3	121497	109686	1882	15583	
7627   2 No op:			29.1	21.4	9.8	14.7	
8.3			+				
+							
53467		4	173791	234644	12261	56989	
Disagn 58.1			41.6	45.7	64.1	53.7	
	10.5		+		+	++	
+		5	72515	118377	4247	28558	
27592  Strone		re	17.3	23.1	22.2	26.91	
30.0	21.9		+				
+							
92015	1148247		418012				
8.0		al	36.4	44.7	1.7	9.2	
		- 0	h	15617	-0		
			bservatior 				

Q13 Des. personnel trained in emergency prac by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

06	Count Col Pct	  E1-E4	E5-E9	W1-W5	01-03 04-
5   1	Row Cotal	1			4
Q13 + 24378  1 Strongl	.60572	47079	75407	2207	11501
26.5	2				57103
40157  5 Agree 43.7					53.9
21296  3 No opin 23.1	55993 ion 31.0	34.3	30.2	34.6	30016  28.3
+ 5784  9 Disagre 6.3	4 22375 ee 8.0	38168	40127	1395	6901
+ 382  2 Strongl .4	5 4750 y disagre 2.2	14547	9070	389	362
91998 11 8.0 1	Column 47610 Total	417843	512745	19142	105882
Number of	Missing (	bservation	ns: 15679	97 	

Q14 Leadership published a written safety po  $\,$  by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

06	Count Col Pct		E5-E9	W1-W5	01-03 04-
	Row	I I 1	1 2	3	4
5   Q14	Total				+
+		48020	98462	3534	20839
32348  Strong 35.2	ly agree 17.7				19.7
+					56703
37041  Agree 40.4	533030	42.4	49.1	.  60.0	53.7
+	2				23799
17216  No opi 18.8	340156 nion 29.7	39.0	25.9	18.5	22.6
+					3873
4930  Disagr 5.4	53862 ree 4.7	5.2	4.5	2.4	3.7
+					314
243	14985	•			.3
.3	1.3				
+				19119	
91778 1 8.0	.145236 Total			1.7	
,			4.504		

Number of Missing Observations: 159171

Q15 Near miss accidents are investigated by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

Count Col Pct	  E1-E4 E5	-E9 W1-	-w5 o:	1-03 04-
Row 5   Total Q15	1	•		,
27583   167294 Strongly agree 30.1   14.6	50970    12.2			
+ 2 34148  442671 Agree 37.3  38.6	+	209969	7580  39.7	49586
26734 448201	183887    44.1	196624  38.4	7505	33451
+ 2255  59468 Disagree 2.5  5.2	28675    6.9	24214	810	3514
+ 5 854  28578 Strongly disagre .9  2.5	12465	14089	159	1011
+ Column 91574 1146212	417385	·		·

mber of Missing Ol						
	bservation	s: 158194 			+ Column 412881 508684 18724 105 91201 1136578	088
					Total 36.3 44.8 1.6	9.2
Personnel mora		by XPAY	GRP2 Imp	uted	8.0 100.0	
grade Group 2 - !	5 levels				Number of Missing Observations: 167828	
Count	I					
Col Pct	E1-E4 :	E5-E9 W	1-W5 O	1-03 C	Q18 Understand safety & health regulations by XPA Imputed Paygrade Group 2 - 5 levels	YGRP
Row	1	2	3	4	imputed raygrade Group 2 - 3 levels	
Total		+-			Count   Col Pct  E1-E4 E5-E9 W1-W5 01-03	
1 5  171478	76096	83453	1136	6498	Row	
trongly agree 7  15.0	18.4	16.3	6.0	6.1		4
-+	109274		3871		+	669
03 273438					33969   263369	
gree 8  23.9	++	22.1	20.5	19.7	37.2 23.2	8.7
	132692	136962	5327	27413		711
50  314444 o opinion 1  27.5	32.0	26.8	28.2	25.9		9.1
-+		139895	6398	40924	+	069
07  303001 isagree 8  26.5	18.9	27.4	33.8	38.7	9214  182061 No opinion   21.6  13.9  3.4  1. 10.1  16.0	1.5
-+ 5	18063	37479	2184	10197		695
35  79458 trongly disagre 6  7.0		7.3	11.5	9.6	380  15463 Disagree   2.4  .8  1.6  .4  1.4	.7
-+ Column		510746		105863	+	143
90 1141819					90   4690	
Total 0 100.0	36.3	44.7	1.7	9.3	Strongly disagre   .5  .5  .8  .1  .4	.1
					++	
					+	·
					Column 413892 507563 18944 105. 91317 1137003	287
					Column 413892 507563 18944 105. 91317 1137003	·
Leadership does	s only wha	t the law :	requir b	y XPAYGR	Column 413892 507563 18944 105 91317 1137003 Total 36.4 44.6 1.7 8.0 100.0	287
Leadership does	s only wha	t the law :	requir b	y XPAYGR	Column 413892 507563 18944 105 91317 1137003 Total 36.4 44.6 1.7	287
Leadership doe: puted Paygrade G: Count	s only wha	t the law : levels			Column 413892 507563 18944 105 91317 1137003 Total 36.4 44.6 1.7 8.0 100.0	287
Leadership doe: puted Paygrade G:	s only wha	t the law : levels		y xpaygr 1-03 C	Column 413892 507563 18944 105 91317 1137003 Total 36.4 44.6 1.7 8.0 100.0  Number of Missing Observations: 167404	287
Leadership doe: puted Paygrade G: Count	s only wha roup 2 - 5	t the law : levels E5-E9 W	1-W5 O	1-03 C	Column 413892 507563 18944 105. 91317 1137003 Total 36.4 44.6 1.7 8.0 100.0  Number of Missing Observations: 167404	287
Leadership doe: puted Paygrade G:	s only wha roup 2 - 5	t the law : levels E5-E9 W:	1-W5 O	1-03 C	Column 413892 507563 18944 105. 91317 1137003 Total 36.4 44.6 1.7 8.0 100.0  Number of Missing Observations: 167404	287 9.3
Leadership doe: puted Paygrade G:  Count Col Pct  Row  Total	s only wha roup 2 - 5	t the law : levels	3   +	1-03 C	Column 413892 507563 18944 105 91317 1137003 Total 36.4 44.6 1.7 8.0 100.0  Number of Missing Observations: 167404	287 9.3
Leadership doe: puted Paygrade G:	s only wha roup 2 - 5	t the law : levels E5-E9 W:	3   +	1-03 C	Column 413892 507563 18944 105. 91317 1137003 Total 36.4 44.6 1.7 8.0 100.0  Number of Missing Observations: 167404	287 9.3
Leadership doe: puted Paygrade G:  Count Col Pct  Row  Total+ 1 50384 trongly agree 4 4.4	s only wha roup 2 - 5	t the law: levels  E5-E9 W: 2	3   +- 668  3.6	1-03 C	Column 413892 507563 18944 105. 91317 1137003 Total 36.4 44.6 1.7 8.0 100.0  Number of Missing Observations: 167404	287 9.3 
Leadership doe: puted Paygrade G:  Count Col Pct  Row  Total -+ 1 4  50384 trongly agree 4  4.4	s only wharoup 2 - 5	t the law : levels  E5-E9 W:  2    26339   5.2	3   	1-03 C	Column 413892 507563 18944 105. 91317 1137003 Total 36.4 44.6 1.7 8.0 100.0  Number of Missing Observations: 167404	287 9.3 AYGR
Leadership does puted Paygrade G:  Count Col Pct  Row  Total	s only wharoup 2 - 5	t the law : levels  E5-E9 W.  2    26339   5.2   82504	1-w5 O 3   668  3.6  2957	1-03 C 4  + 2538  2.4 + 11372	Column 413892 507563 18944 105 91317 1137003 Total 36.4 44.6 1.7 8.0 100.0  Number of Missing Observations: 167404	287 9.3  AYGR:
Leadership does puted Paygrade G:  Count Col Pct  Row  Total 4   50384 trongly agree 4   4.4 26   168726 gree 4   14.8	s only wharoup 2 - 5	t the law : levels  E5-E9 W.  2    26339   5.2   82504	3   3   668  3.6  2957  15.8	1-03 C 4  + 2538  2.4 + 11372  10.8	Column 413892 507563 18944 105 91317 1137003 Total 36.4 44.6 1.7 8.0 100.0  Number of Missing Observations: 167404	287 9.3 AYGR 4  + 284  8.5
Leadership doe: puted Paygrade G:  Count Col Pct  Row  Total	s only wharoup 2 - 5	t the law : levels  E5-E9 W: 2  + 26339  5.2 + 82504  16.2	3   +- 668  3.6   2957  15.8	1-03 C 4  + 2538  2.4 + 11372  10.8	Column 413892 507563 18944 105 91317 1137003 Total 36.4 44.6 1.7 8.0 100.0  Number of Missing Observations: 167404	287 9.3 AYGR 4  + 284  8.5 +
Leadership does puted Paygrade G  Count Col Pct  Row  Total	s only wharoup 2 - 5	t the law : levels  E5-E9 W:  2    26339   5.2   82504   16.2   178490   35.1	15.8   5596   29.9	1-03 C  4   + 2538  2.4 + 11372  10.8 + 32884  31.3	Column 413892 507563 18944 105 91317 1137003 Total 36.4 44.6 1.7 8.0 100.0  Number of Missing Observations: 167404	287 9.3 AYGR 4  + 284  8.5 + 361  3.5
Row   Total	s only wha roup 2 - 5	t the law : levels  E5-E9 W:  2    26339   5.2   82504   16.2   178490   35.1	15.8   29.9	1-03 C  4   +  2538   2.4  +  11372   10.8  +  32884   31.3	Column 413892 507563 18944 105 91317 1137003 Total 36.4 44.6 1.7 8.0 100.0  Number of Missing Observations: 167404	287 9.3 AYGR 4  + 284  8.5 + 361  3.5
Leadership doe: puted Paygrade G:	s only wha roup 2 - 5	t the law : levels  E5-E9 W:  2    26339   5.2   82504   16.2   178490   35.1   172009	1-w5 O  3   668  3.6	1-03 C  4   + 2538  2.4 + 11372  10.8 + 32884  31.3	Column 413892 507563 18944 105 91317 1137003 Total 36.4 44.6 1.7 8.0 100.0  Number of Missing Observations: 167404	287 9.3 AYGR: 4  + 284  8.5 + 361  3.5 + 540
Leadership does puted Paygrade G:  Count Col Pct  Row  Total  -+  4   50384 trongly agree 4   4.4 +  26   168726 gree 4   14.8 +  316   412567 o opinion 3   36.3 +  485   385319 isagree 4   4  485   385319 isagree	s only wha roup 2 - 5    E1-E4	t the law : levels  E5-E9 W:  2    26339   5.2   82504   16.2   178490   35.1   172009	3   	1-03 C  4    2538  2.4	Column 413892 507563 18944 105 91317 1137003  Total 36.4 44.6 1.7  8.0 100.0  Number of Missing Observations: 167404	287 9.3 AYGR 4  + 284  8.5 + 361  3.5 + 540  7.7

Disa .6	gree 2.6	4.3	2.1	.6	.2	
		++	+-	+-		
170	5 10797	5476	5007	26	118	
Stro	ngly disagre	1.3	1.0	.1	.1	
		++	+-	+-		
91122	Column 1134596	412353	507663	18988	104470	
,,,,,,,,		36.3	44.7	1.7	9.2	
8.0	100.0					
Number of Missing Observations: 169811						

Q20 Precautions used for hazardous mat. by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

06	Count Col Pct	  E1-E4	E5-E9	W1-W5	01-03 04-
5   Tot 020	tal	   1   +			4
+		67873	111175	3189	18143
31052   233 Strongly 34.1   20	agree 0.4				17.2
+	2	192706			
36344  553 Agree 39.9  48	8.8	47.0			58.8
22983   323	3	136980			
No opinio 25.2   28	on 8.6	33.4			23.3
+ 573  159	4	7536			
Disagree	1.4				.6
+					95
204   8' Strongly .2	708 disagre				.1
+		++ 409656			105434
91156 113	3031 Total	36.2			
8.0 100 Number of 1		bservation	ıs: 17137	76	

Q21 Adequate personnel to manage safety prog by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

Cou Col		E1-E4	E5-E9	W1-W5	01-03	04-
Row 5   Total Q21	   +	1		3		
11406   146424 Strongly agre 12.5   12.9	e	44012  10.8	14.3	15.2	14.6	· 
+ 56765  555044 Agree 62.2  48.9	2	181238	250928 49.2	8725 45.9	57389   54.7	    
+ 19485  357042		158364				

No opinion 21.3   31.5	38.7			,
	++	+-	+-	
+	17422	306641	1045	1061
3349 57441	1/422	300041	1043	4901
Disagree	4.3	6.0	5.5	4.7
3.7  5.1				
	++		+-	
+	1 00001	04061	4021	C01
322  18262	8289	8486	403	091
Strongly disagre	1 2.01	1.7	2.5	.61
.4  1.6				
	+		+-	
+	400005			
91326 1134214	409325	509606	19015	104940
	36.1	44 9	1 7	9.3
8.1 100.0	30.1	11.5	1.,	J.J
Number of Missing (	Observation:	s: 170193		

Q22 Award program does not promote safety by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

06	Coi Col		  E1-E4	E5-E9	W1-W5	01-03 04-
	Row		l l 1	1 2	3	4
5   Q22	Total					
+		1	28239	30066	1110	2436
Stron	63481 gly agre 5.6				5.8	2.3
+		2			2801	
Agree	194034			•		17.3
+		3			8289	
No op	555226 inion 48.8					43.1
+		4			++   5283	33599
Disag	266118 ree 23.4				27.8	
+						5635
		agre	4.5	5.0	7.8	5.3
+	<b>C</b> .					105221
91073	1136682				18971	
8.0	100.0		50.0	15.0		2.5

Number of Missing Observations: 167725

Q23 Performance standards higher than safety by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

0.5	Coun Col P		E1-E4	E5	-E9	W1-	W5	01-	03	04-
06		1								
	Row		1	ı	2	ı	3	1	4	1
5	Total	- 1	_	1	-	1	3	1	-	1
Q23		+		-+		-+		+		+
+		1	22152	2	3010	7	1015	5	3893	3
Strong	58709 ly agree 5.2	- 1	5.4	1	5.9	9	5.3	3	3.7	'
		+		-+		-+		+		+
15846	238824	2	86454	1	10892	1	3434	1	24168	3

Agree 17.3   21.1			21.4		23.0	
+			249386			
49759   584685 No opinion 54.5   51.6	İ	55.8	49.0	52.4	44.7	
+						
20480   211452		61782	99574	3672	25944	
Disagree 22.4 18.6	1	15.1	19.6	19.3	24.7	
+	+-		+	+-		
5		10304	21147	924	4141	
3715   40231 Strongly disagre 4.1   3.5		2.5	4.2	4.9	3.9	
+	+-		+	+-		
	ı	409270	509136	19015	105138	
91340 1133900		26 1	44.9	1 7	0.2	
8.1 100.0		30.1	44.7	1.7	9.3	
Number of Missing Observations: 170506						

Q24 Super. understand job safety problems by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

06	Count Col Pct	  E1-E4	E5-E9	W1-W5	01-03 04-
5   To	otal	1 1			4
11017  15	1 52095	48655	74116	2603	15704
Strongly 12.1  1	13.4				14.9
41161  54	10284				58282  55.3
Agree 45.3  4	17.8				+
36727   39	96498				29197
No opini 40.4  3	35.1				27.7
1668  29	4 9960	10504	15705	267	1817
Disagree	2.6				1.7
288   12		5006	6356	148	384
	y disagre 1.1				.4
90861 113	Column	407452			
8.0 10	Total	36.0	44.9	1.7	9.3
Number of	Missing C	bservation	s: 17338	37	

Q25 Personnel follow lock./tagout procedures by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

06	Cot Col		  E1	-E4	E5-	-E9	W1	-W5	01	-03	04-
5   025	Row Total		 	1						4	'
9321	115285	1		36821						790	

Strongly agree 10.3   10.2				7.6
+ 35008  328495 Agree 38.5  29.2	114819    28.4	141491  27.9		
+ 3 43981  625099 No opinion 48.4  55.5	224166	284408	11826	60719
+ 2345  37921 Disagree 2.6  3.4	20103	11876	826	2772
+ 5 258  19007 Strongly disagre .3  1.7	9044	8985  1.8	246	473  .5
90913 1125808	404953	506492	18851	104600

Number of Missing Observations: 178599

Q26 Safety training is part of orientation by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

06	Count Col Pct	  E1-E4	E5-E9	W1-W5	01-03 04	4-
	Row	1	2	3	4	
5   Q26		++				
20412	1 227593	67641	105493	3701	21345	
	gly agree 20.2	16.7				
+		176335				
36590  Agree 40.5		43.4				
+		129752				
No op	27.3	32.0				
+	4	21953				
5233  Disag 5.8	ree 5.7	5.4				
+		++				
	19621	10428			•	
	gly disagre 1.7	2.6			•	
+						
90330	1127539	406109				
8.0		36.0	45.0	1.7	9.3	
Number	of Missina C	)bservations	a: 17686	57		

Number of Missing Observations: 176867

Q27 Leadership is sincere about personnel sa by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

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Count | Col Pct | E1-E4 E5-E9 W1-W5 O1-O3 O4-O6 | Row
```

5   Total 027			2		4		
37358  224259 Strongly agree 41.3  20.0	ı	14.3		17.6			
40323  538114 Agree 44.5  48.1	2	172049	255094  50.6	11228  58.9	59420		
11738   300088 No opinion 13.0   26.8	İ	35.7	122477  24.3	20.5			
1006   41985 Disagree 1.1   3.8	İ	5.1	17955  3.6	1.4			
87  14505 Strongly disagr .1  1.3	5   ce	8197	5767  1.1	303  1.6	152		
+ Colum 90511 1118951	nn	400529	504141	19074	104695		
Number of Missing Observations: 185456							

Q28 Supervisors seldom act on worker sugg. by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

Coun Col F		  E1-E4	E5-E9	W1-W5	01-03 04-
Row		   1	2	3	4
5   Total 028		++		+	
+	1	16738	14717	329	741
Strongly agree .5  2.9					.7
					5111
2201  118906 Agree 2.4  10.6					4.9
+ 24610  460899					34662
					33.2
					51436
34031  395626 Disagree 37.9  35.2					49.2
+					12593
28595  115903 Strongly disag 31.8  10.3					
+					
Colu 89882 1124305	mn	405193	505613	19074	104543
	al	36.0	45.0	1.7	9.3
Number of Missin					

Q29 Emergency procedures rarely tested by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

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Count Col Pct	    E1-E4	⊑5-E9 W	1-W5 O	1-03 04-
Row 5   Total 029	   1	·		4
976   40114 Strongly agree 1.1   3.6		3.5	2.4	1.5
+ 6694  160326	57852    14.3	80694  16.0	2202  11.5	
22071 439416	182014    45.1	192060	8500  44.6	34771
+ 4 32924  355448 Disagree 36.4  31.7	113274    28.1	159281	5892	44077
27741   125426 Strongly disagre 30.7   11.2	30850	53559	2017	11259
+ Column 90406 1120731	403543	503134	19074	104574

Number of Missing Observations: 183676

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Q30 Safety officer improves safety by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

06	Count Col Pct	  E1-E4	E5-E9	W1-W5	01-03 04-
5   O30				3	4
8097	1 116118 gly agree	41334	55172   11.0	2494    13.2	9021
Agree	371772	123193	168084	7883    41.7	
No op	50.4	208857	248905	7691    40.6	
+ 2604  Disag 2.9	4 46448 ree 4.2	17620   4.4	22058	660    3.5	3506
Stron		8516   2.1	8732   1.7	194	899
90034	1115737	399520	502951	18922	104311

Number of Missing Observations: 188670

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Q31 Leadership sets fine safety example by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

06	Count Col Pct	  E1-E4	E5-E9	W1-W5	01-03 04-
	Row	1	2	2	4
5   T					4
+		45153			
	80437 y agree				18.8
35.4	16.2	++	+	+	
+		166505	236967	10667	55470
41138  5 Agree 45.5					53.7
+					25221
15618   3 No opin 17.3	ion 31.8	39.0			
+		19371			3006
1538  4 Disagre	7249 e	4.8			
1.7	4.2	++	+	+	
190   2	5	13586	8946	235	208
Strongl .2	y disagre 2.1				.2
+		400814			
90484 11	16984 Total	35.9			
8.1 1			4.0546		
Number of		Observation	s: 18742 	!2 	

Q32 Supervisors fits safety into performance by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

Count Col Pct	E1-E4	E5-E9	W1-W5	01-03 04-
Row 5   Total	1	2	3	4
Q32	-+	++	+	
	45708	82035	2792	16501
Strongly agree 31.7   15.8				16.0
+ 2		235846		
38485  502038 Agree 43.0  45.1	41.5	47.0	47.8	51.1
+	+	++	+	
3 21340  387023	165873	161800	6467	31544
No opinion 23.8   34.8	•	32.3		30.6
+				
1390   37997	•	17336		,
Disagree 1.6  3.4	•	3.5		2.1
+		4664		·
10869 Strongly disagre				
1.0				·+

	Column	400049	501681	19076	102944
89577	1113326				
	Total	35.9	45.1	1.7	9.2
8 0	100 0				

Number of Missing Observations: 191080

 $\ensuremath{\texttt{Q33}}$  Preventive maintenance operates poorly by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

Row	06		Cou Col		  E1-E4	E5-E9	W1-W5	i 01	L-03	04-
Q33					1	2	1	3	4	l
1   17699  20763  427  3339   1521  43749		Tot	al 		+	-+	+	+		+
Strongly agree   4.4   4.1   2.3   3.2   1.7   3.9				1	17699	9  2076	53	427	3339	
2   64901   77647   2354   11846    22655   179403	Sti	congly	agre							
2655   179403 Agree   16.1   15.4   12.4   11.5    25.5   16.1		+		2	64901	L  7764	47   2	2354	11846	1
3   187861  209403  8844  38417   29248  473773 No opinion   46.7  41.6  46.7  37.2   33.0  42.4 +  4   107916  156366  5725  39005   26538  335551 Disagree   26.8  31.1  30.2  37.8   29.9  30.1 +  5   23759  39115  1598  10691   8760  83924 Strongly disagre   5.9  7.8  8.4  10.3  9.9  7.5 +  Column 402135 503294 18949 103298  88724 1116399 Total 36.0 45.1 1.7 9.3	Agı	ree								
3   187861   209403   8844   38417   29248   473773 No opinion   46.7   41.6   46.7   37.2   33.0   42.4 +  4   107916   156366   5725   39005   26538   335551 Disagree   26.8   31.1   30.2   37.8   29.9   30.1 +  5   23759   39115   1598   10691   8760   83924 Strongly disagre   5.9   7.8   8.4   10.3   9.9   7.5 +  Column   402135   503294   18949   103298 88724   1116399 Total   36.0   45.1   1.7   9.3			5.1		+	+	+	+		+
No opinion   46.7  41.6  46.7  37.2  33.0  42.4 + 4   107916  156366  5725  39005   26538  335551 Disagree   26.8  31.1  30.2  37.8  29.9  30.1 + 5   23759  39115  1598  10691   8760  83924 Strongly disagre   5.9  7.8  8.4  10.3  9.9  7.5 +  Column 402135 503294 18949 103298  88724 1116399 Total 36.0 45.1 1.7 9.3				3	187861	20940	03  8	844	38417	
+  26538  335551 Disagree   26.8  31.1  30.2  37.8  29.9  30.1+  5   23759  39115  1598  10691   8760  83924 Strongly disagre   5.9  7.8  8.4  10.3  9.9  7.5+  Column 402135 503294 18949 103298  88724 1116399 Total 36.0 45.1 1.7 9.3	No	opinion		•	•					
Disagree   26.8   31.1   30.2   37.8   29.9   30.1		+								
+  5   23759  39115  1598  10691   8760  83924 Strongly disagre   5.9  7.8  8.4  10.3   9.9  7.5 +  Column 402135 503294 18949 103298  88724 1116399 Total 36.0 45.1 1.7 9.3	Dis	sagree								
8760  83924 Strongly disagre   5.9  7.8  8.4  10.3  9.9  7.5 + Column 402135 503294 18949 103298 88724 1116399 Total 36.0 45.1 1.7 9.3		+								
+ Column 402135 503294 18949 103298 88724 1116399 Total 36.0 45.1 1.7 9.3	Sti	ongly	disa	agre	5.9	9  7.	.8	8.4	10.3	
88724 1116399 Total 36.0 45.1 1.7 9.3		+	Col							
			5399 To							

Q34 Leadership participates in safety activi by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

Number of Missing Observations: 188007

06	Cour Col E			E5-E9 V	V1-W5 0	1-03 04-
	Row		   1	2	3	4
5   Q34						+
10045		1	29486	56338	2378	12196
10245  Strong 11.4	gly agree	è	7.4			11.8
+		2	135213			
51757  Agree 57.7			33.9	39.5	42.9	
+		3				·
25593 No op 28.5	inion		50.1			39.1
+			26371			
1805  Disag: 2.0	ree	-	6.6	7.0	2.4	5.0
+			++	+-	+	

284	5 17561	8126	8535	490	126			
	ngly disagre 1.6			2.6	.1			
+		+	++-	+-				
89684	Column	399005	500849	18844	102962			
8.1	Total	35.9	45.1	1.7	9.3			
Number of Missing Observations: 193061								

Q35 Safety officer has high status by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

	Count   Col Pct	E1-E4 E	5-E9 W1	L-W5 O	1-03 04-
Ro		1	2	3	4
2		+-	+	+-	+
+ 8378  1008		33125	49662	2525	7205
Strongly 9	agree   .1				7.0
+	2	102588			
37856   326 Agree 42.3   29	.3				31.8
+	3	218846			
33529   562 No opinio: 37.5   50	n	54.6			50.0
+	4	37205			
8662  985 Disagree 9.7  8	. 8	9.3			9.7
+		9048			
970   266 Strongly 0 1.1   2	54 disagre   .4	2.3	3.0	1.8	1.4
+					
89395 1114	850	400812 36.0			
8.0 100		30.0	10.1		2.5
Number of M	issing Ob	servations	: 189557		

Q36 Hazards not fixed quickly are ignored by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

06	Count Col Pct	E1-E	4 E	5-E9	W1-W5	01-03 04-
5   Q36	Row Total					4
		I	2.9	1.9	.3	651    .6
4089  3 Agree 4.6	154407		16.8	14.1	11.4	10427
42316   No op: 47.4	inion	1 .	41.9	38.1	38.0	37954    36.9  +

		4		125091	182373	7798	45728
32271  Disag: 36.1	ree			31.2	36.4	41.4	44.5
30.1	33.3		+			+-	+
+							
		5		28906	47427	1687	8080
9836	95936						
Stron	gly disag	gre		7.2	9.5	9.0	7.9
11.0	8.6						
			+	+-	+	+-	+
+							
	Colu	ımn		401319	500575	18825	102840
89276	1112835						
	Tot	tal		36.1	45.0	1.7	9.2
8.0	100.0						
Number	of Missi	ng C	bse	ervations	: 191572		

Q37 Personnel take part in accident invest. by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

06	Count Col Pc		  E1-E4	E5-E9	W1-W5	0	1-03	04-
	Row		l 			. 1	4 1	
5   5			1		,		,	
Q37 +	1		33712					
9240  Strong 10.4	ly agree		8.5					
+ 51632			131604					
Agree 58.1			33.1					
26377			210905					
No opi	nion		53.0 +					
1529			17812					
Disagr	ee		4.5					
+	5		3913					
150  Strong .2	ly disagr		1.0	•				
+	g 1							
88928 1	110190		397946					
8.0	Tota 100.0	Τ	35.8	45.	2 1	.7	9.3	
	f Missing							

Q38 Training by supervisor helps job safety by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

	Count ol Pct	  E1-E4	E5-E9	W1-W5	01-03	04-
Row 5   Tota 038 -	1	   1   +		3		
8447   12516 Strongly a 9.5   11.	1 1 gree 3	40705	64071 12.8	235	1   958 6   9.	7
+ 49254  4865 Agree 55.4  43.	2 99 7	169374	209648	734	2   5098 3   49.	1   6

00422	445025	3	164233	203866	7837	39666		
29433  No opi 33.1	nion		41.1	40.6	41.9	38.6		
+			+		+-			
	41.461	4	18832	17603	951	2386		
1689  Disagr 1.9	ee		4.7			•		
+			+		+-			
		5	6377	7205	220	236		
105  Strong .1	ly disa	_	1.6			•		
+			+		+-	+		
	Col	umn	399522	502394	18701	102855		
88928 1			35.9	45.0	1 5	0.0		
8.0		taı	35.9	45.2	1.7	9.2		
Number of Missing Observations: 192006								

Q39 Medical facilities are sufficient by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

06	Count Col Pct	  E1-E4	E5-E9 W	1-W5 O	1-03 04-
	Row		0 1	2	4 1
5   T	otal	1			4
+		48455			
14377  1 Strongl 16.1	y agree 13.6	12.1			13.7
+	2				
52197  4 Agree 58.5	42.6	37.7	41.5	46.7	
+	3				
15450  3 No opin 17.3	ion				26.0
+	4	39153		·	6931
4789  8 Disagre 5.4	e 8.1	9.8			
+		23507			1504
2404  5 Strongl 2.7	5061 y disagre	5.9	·		
+	5.0	+	+-	+-	
89216 11	11034	399903			
8.0 1		36.0	45.0	1.7	9.3
Number of	Missing C	)bservations	: 193372		

Q40 Leadership ignores safety during promoti by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

0.5	Count Col Pct	t   E1-E4	E5-E	9 W1-W	5 01-0	03 04-
06		1				
	Row					
5	Total	:	L	2	3	4
040		+	+			+
+			'			
	1	200	502   1	7617	339	2098
408	41063		'			
	gly agree	!	5.1	3.6	1.8	2.1
.5	3.7					
		+	+	+	+	+
+						

1505   105505	2	51145	44456	1073	7217	
1705  105595 Agree 1.9  9.6		12.8	9.0	5.7	7.1	
+		+	+-	+-		
	3	216556	240792	8940	43226	
26756  536270 No opinion 30.1  48.5		54.1		•		
+		+	+-	+-		
45261  316187	4	84931	141257	5796	38942	
Disagree 50.9 28.6		21.2		•		
+		+	+-	+-		
	5	26963	51260	2550	10826	
14726  106324 Strongly disa 16.6  9.6						
+		+	+-	+-		
Col	umn	400196	495382	18698	102307	
88856 1105440 To 8.0 100.0	tal	36.2	44.8	1.7	9.3	

Number of Missing Observations: 198967

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Q41 Safety officer is readily available by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

06	Count Col Pct	  E1-E4	E5-E9	W1-W5	01-03 04-
	Row	1	2	3	4
Q41	Total				
+	1	32405	67097	3689	12845
	128786 gly agree 11.7				12.5
+	2				
	420701	125773			
Agree 56.0	ee 38.1				45.4
+	3				
	459538				
No op 25.8	41.6				37.0
+		32497			
3056	72655				•
Disag 3.4	6.6	8.3			4.5
+					
	22949	11465			
	gly disagre 2.1				.5
+	g . 1				
89317	1104629	393424			
8.1	Total	35.6	45.3	1.7	9.3

Number of Missing Observations: 199777

-----

Q42 This unit has a stable workforce by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

06	Count Col Pc		-E4	E5	-E9	W1	-W5	01	-03	04-
	Row	 	1	ı	2	ı	3	ı	4	
5   Q42 +	Total	+		-+		-+		-+		-+

5000   74939 Strongly agree   6.8   6.9   10.3   6.5   5.6   6.8	E000	74020	1		26797	34618	1924	6600	
+ 2   127835   173041   7083   38903    30412   377274 Agree	Strong	ly agre	е						
30412  377274 Agree   32.2  34.6  38.1  38.1  +	+								
Agree   32.2   34.6   38.1   38.1   34.2   34.1	204101	20004	2		127835	173041	7083	38903	
+ 3   178766  188987  5838  33979  35416  442986 No opinion   45.1  37.8  31.4  33.3  39.8  40.0+ 4   44999  69546  2857  17928  13525  148854 Disagree   11.3  13.9  15.4  17.6  15.2  13.5+ 5   18403  33899  901  4721  4585  62509 Strongly disagre   4.6  6.8  4.8  4.6  5.2  5.6+ Column   396800   500090   18604   102130 88938   1106562 Total   35.9   45.2   1.7   9.2	Agree					·	•		
3   178766  188987  5838  33979   35416  442986 No opinion   45.1  37.8  31.4  33.3  39.8  40.0 +  4   44999  69546  2857  17928   13525  148854 Disagree   11.3  13.9  15.4  17.6  15.2  13.5 +  5   18403  33899  901  4721  4585  62509 Strongly disagre   4.6  6.8  4.8  4.6  5.2  5.6 +  Column 396800 500090 18604 102130  88938 1106562 Total 35.9 45.2 1.7 9.2				+	+-	+-	+-		
No opinion   45.1   37.8   31.4   33.3   39.8   40.0			3	1	178766	188987	5838	33979	
39.8   40.0+  13525   148854 Disagree   11.3   13.9   15.4   17.6   15.2   13.5+  5   18403   33899   901   4721   4785   62509 Strongly disagre   4.6   6.8   4.8   4.6   5.2   5.6+  Column 396800 500090 18604 102130 88938 1106562 Total 35.9 45.2 1.7 9.2				ı	4E 1	27 01	21 41	22 21	
+ 4   44999   69546   2857   17928    13525   148854 Disagree   11.3   13.9   15.4   17.6    15.2   13.5+ 5   18403   33899   901   4721    4585   62509 Strongly disagre   4.6   6.8   4.8   4.6    5.2   5.6+ Column 396800 500090 18604 102130  88938 1106562 Total 35.9 45.2 1.7 9.2									
13525   148854 Disagree   11.3   13.9   15.4   17.6   15.2   13.5 +  4585   62509 Strongly disagre   4.6   6.8   4.8   4.6   5.2   5.6 +  Column 396800 500090 18604 102130 88938 1106562 Total 35.9 45.2 1.7 9.2 8.0 100.0	+								
Disagree   11.3   13.9   15.4   17.6   15.2   13.5	13525		4		44999	69546	2857	17928	
+ 5   18403  33899  901  4721  4585  62509 Strongly disagre   4.6  6.8  4.8  4.6  5.2  5.6+ Column 396800 500090 18604 102130 88938 1106562 Total 35.9 45.2 1.7 9.2	Disagr	ee			11.3	13.9	15.4	17.6	
+ 5   18403  33899  901  4721  4585  62509	15.2	13.5		+					
4585   62509 Strongly disagre   4.6   6.8   4.8   4.6   5.2   5.6  +	+								
Strongly disagre   4.6   6.8   4.8   4.6   5.2   5.6	4E0E	62500	5		18403	33899	901	4721	
5.2  5.6+ Column 396800 500090 18604 102130 88938 1106562 Total 35.9 45.2 1.7 9.2 8.0 100.0			gre	1	4.6	6.8	4.8	4.6	
+ Column 396800 500090 18604 102130 88938 1106562 Total 35.9 45.2 1.7 9.2 8.0 100.0									
88938 1106562 Total 35.9 45.2 1.7 9.2 8.0 100.0	+			Τ					
Total 35.9 45.2 1.7 9.2 8.0 100.0	00000 1		umn		396800	500090	18604	102130	
	88938 I		tal		35.9	45.2	1.7	9.2	
Number of Missing Observations: 197844	8.0								
	Number of Missing Observations: 197844								

 ${\tt Q43}$  Personnel afraid to report problems by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

Coun Col P		  E1-E4	E5-E9	W1-W5	01-03 04-
Row 5   Total		1	2	3	4
Q43		++			
814 24915					1127
Strongly agree					1.1
+					5436
1538  86461 Agree		8.9	8.7	5.6	5.3
1.7  7.8					+
+	3	191368	186433	6303	31582
16731   432417 No opinion 18.9   39.2		48.4	37.5	34.0	30.7
+					
54313   437744					51273
Disagree 61.2  39.7					49.9
+					13357
15281   121607	re	I 781	11 9	14 2	13.01
17.2 11.0		++			
		395597			
	al	35.9	45.1	1.7	9.3
Number of Missin		oservation	s: 20126	52	

Q44 Supervisors always investigate accidents by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

Count | Col Pct |E1-E4 E5-E9 W1-W5 01-03 04-

Row 5   Total Q44	   1			4
9883   115845 Strongly agree 11.1   10.5		11.5	16.4	•
+ 2 51390  425817 Agree 57.6  38.5	129381    32.4	38.6	43.6	
+ 26162  510035 No opinion 29.3  46.1	52.8	44.6	35.9	
1435  43154 Disagree 1.6  3.9	20813	19159	672  3.6	1076
+ 5 323  11989 Strongly disagre .4  1.1		1.4	.4	
89193 1106841	398800 36.0	497841	18477	102530

Number of Missing Observations: 197565

Q45 Environmental cond. kept at good levels by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

06	Count Col Pct	  E1-E4	E5-E9	W1-W5	01-03 04-
	Row	1	l 2	3	4
5   045	Total				
+		41028	53016	1916	9603
					9.3
+	2				53979
41015  Agree 46.1	483685				52.5
29714	3 390598				30446
No op	inion 35.4				29.6
+	4				7049
5962  Disag 6.7	ree 7.1		•		6.9
+	5				1676
	gly disagre 3.2				
+					100753
89054 8.1	1104075 Total	395107 35.8			
Number	of Missing (	)bservation	ns: 2003	31	

\_\_\_\_\_

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Q46 Personnel dont use necessary PPE by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

06	Count Col Pct	  E1-E4	E5-E9	W1-W5	01-03	04-
7 Ro 5   Tot 046	al	   1   +				
475   311	.65	14107	14858	328	1397	
.5  2	.8	+		+	+	
4669  1515 Agree 5.2  13	67	65717    16.5				
+	3	+   166154				
39853  433 No opinio 44.5  39	n .1	41.8				
33374  392	288	123248				
Disagree 37.3  35	. 3	31.0				
	491 disagre	27916    7.0				
12.4  9		397141		18672		
89499 1110 8.1 100	440 Total	35.8				
Number of M		bservatior	ns: 1939	56 		

Q47 Job stress is significant problem for me  $\,$  by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

06	Cou Col		  E1-E4	E5-E9	W1-W5	01-03 04-
	Row		1	2	3	4
5   T Q47	otal		+	+	+	+
1648  4	2755	1	24590	14431	437	2649
	y agre					2.6
+	40000	2				9350
20283  1 Agree 22.6			•			9.1
+						40266
21896  4 No opin 24.4	71157 iion		49.0	41.0	42.3	39.1
+		4				40762
35549  3 Disagre 39.7	ee					39.6
+						10013
10273						
11.5	8.9					9.7
+						
89649 11	12741				18684	
8.1 1		tal	35.9	45.1	1.7	9.3

Number of Missing Observations: 191666

Q48 Leadership insists supervisor think safe by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

Count Col Pct	  E1-E4 E	5-E9 V	√1-W5 C	01-03 04-
Row 5   Total	1	·		
+	51847	90572	3633	•
32.1 17.3		+-	+-	+
40011  501762 Agree 44.8  45.1	40.4	46.8	53.3	
19890  381699 No opinion	165230    41.4	·		
22.3   34.3 + 499   29536	+			1679
Disagree .6  2.7	4.2	·		1.6
5 248   8306 Strongly disagre .3   .7		.8	.6	.0
89331 1113739	399064 35.8	504018	18826	
8.0 100.0	33.0	-3.3	1.7	

Number of Missing Observations: 190668

Q49 Leadership sets goals-hold all accountab by XPAYGRP2 Imputed Paygrade Group 2 - 5 levels

06	Count Col Pct	  E1-E4	E5-E9	W1-W5	01-03 04-
F TO		1			4
9376  133 Strongly	814	42651			
10.5  1	2	130090			38908
41137  39 Agree 46.1  3		32.8			37.7
32575  49 No opini 36.5  4	on	192122   48.5			
6135   68	4	23305			7499
Disagree 6.9	6.2		·	++	
72  18 Strongly .1	928 disagre	7987			

	+			+-	
+		·			
	Column	396155	501487	18826	103164
89294	1108927				
		35.7	45.2	1.7	9.3
8.1	100.0				
Number	of Missing Ob	servations	: 195479		
	ersonnel rarel ed Paygrade Gr			rement b	y XPAYGRP2
	Count				
	Col Pct	E1-E4 E	E5-E9 W	1-W5 C	01-03 04-
06	1				
	Row				
	1.0.11	1	2	3	4
5	Total	•			•
Q50	+			+-	
+	1	10207	17700	445	1422
4001		19387	1//99	445	1432

Strongly agree .5 3.6 54566| 74078| 1982| 10618| 6894| 148139 Agree 7.7 13.8 14.7| 10.6| 10.3|

3.5|

2.4|

1.4

4.9

3 | 207349| 231716| 7978| 48070 30831| 525943 No opinion 52.6 46.1 42.7 46.8 34.5| 47.5 ---+ 95965| 144325| 6028| 36516|

44903 | 327738 Disagree 50.2 | 29.6 28.7| 32.2 35.6 24.3 16924 34687 2273| 6009 5 | 6277| 66170 12.2 Strongly disagre | 7.0 | 6.0 4.3 6.9 5.9

Column 394190 502606 18706 89371 1107518 Total 35.6 45.4 1.7 9.3 8.1

Number of Missing Observations: 196889

466

39529

## Appendix G – Response Distributions by Work Location

Clinic/H Other ospital  7   Q1	8   + 1 4302  :	  Offfice	_	nce /	Outdoors F /Field r	_	hip	74660 6.6	Total 8.1	1133901 43.9 100.0	10.4	9.3	102850 9.1	102005 9.0	40444 3.6
Clinic/H Other Ospital 7   Q1 +	8   + 1 4302  :	Row 1		nce /		_	hip								
7   01	8   + 1 4302  :	1			/Field r	ne		Number of	Mi						
7   Q1	8   + 1 4302  :	1	2	3 1						Observation:		5			
Q1	1 4302	Total +		- 1	4	5	6								
29946  24 Strongly ac 39.8  2	4302		+	+-	+-	+-									
Strongly as 39.8 2		117445	26148	27071	23377	26760	8434		ty takes a g best desc	back seat : cribes yo	to produc	tion by	SAFELOC	Which of	the
39.8   2	aree		22.2	25.6	23.2	26.3	20.8								
	26.4	25.0							Count Col Pct	  Office	Shon i	Maintena (	Outdoors 1	Fliahtli S	thin
	+	272022	61691	53334	48482	56057	22462	Clinic/H		1	-		/Field 1		all p
	3518	593461						ospital		Row					_
Agree 47.7 4	47.2	54.6 52.4	52.3		48.2	55.1	55.3	7		1   Total	2	3	4	5	6
+	+	+				+-		Q3 +	+	-++ +	+	+-	+	+-	
7275  19		90749 203913	24791	20066	19599	16010	6179		1 7194	18408 52895	3766	6270	6560	5773	2528
No opinion		18.2 18.0	21.0	19.0	19.5	15.7	15.2	Strongl		3.7 4.7	3.2	6.0	6.5	5.7	6.4
		+	+		+-			3.21	, , , , ,	+	+	+-	+	+-	
		16689	4757	2936	7597	2910	3053	+		48321	21903	15293	12184	11199	6226
		42878	4.0	2.8	7.5	2.9	7.5	8224 Agree	11649	134998	18.6	14.6	12.0	11.0	15.7
2.5	3.3	3.8	+		+-			11.0	12.7	12.0	+		+	+-	
+	+ 5	1417	534	2307	1574	1	500	+	+	117830	30190	27531	27973	22786	8733
319 2	2085	8736							25882	273437					
Strongly di .4	2.3		.5	2.2	1.6		1.2	16.8	28.3	23.7	25.6	26.2	27.6	22.4	22.1
+	+	+	+	+-	+-	+-			+		+	+-	+	+-	
	Column 92224	498322 1132471	117921	105714	100629	101737	40629		4 32143	219048 472109	45265	34348	36868	46636	16952
	Total	44.0 100.0	10.4	9.3	8.9	9.0	3.6		ee	44.1	38.4	32.7	36.4	45.9	42.8
			45400	.=				54.7		++	+	+-	+	+-	
Number of Mis	ssing U	oservations						+		93454	16746	21549	17839	15180	5160
									14501  Ly disagre	195131	14.2	20.5	17.6	14.9	13.0
Q2 Frequent	contac	t between p	personnel	and 1 by	/ SAFELOO	C Which o	f the	14.3	15.9	17.3	+	+-	+	+-	
following bes	st desc	ribes yo						+	-+Column	+ 497061	117870	104991	101424	101574	39599
(	Count	I						74682	91369 Total	1128570 44.0	10.4	9.3	9.0	9.0	3.5
	ol Pct	Office S	Shop	Maintena C	Outdoors P	Flightli S	hip	6.6	8.1	100.0					
	er			nce /	/Field r	ne				Observation:					
ospital		Row 1	2	3	4	5	6								
7   Q2		Total ++-	+		+-	+-			nnel revis ; best desc	se safety & cribes yo	health p	ractic by	y SAFELO	2 Which c	of the
+	+ 1	105676	22402	19091	18475	17050	4792								
12944  14 Strongly ag	4525	214956							Count	Office	Choro i	Maintena (	Dutdoorg 1	⊡liah+li c	hin
17.3   1	15.8	19.0						Clinic/H	Other	lorrice .					шр
+	+	++-						ospital		   Row   1		nce ,	rleid i	ne	
44723 43	3269	271011  578514					21495	7	8	1   Total	2	3	4	5	6
Agree 59.9 4		54.4	48.6	44.3	40.2	51.5	53.1	Q4	+	-+	+		+	+-	
33.91	-/-01	++-	+	+-	+-	+-			1	48275	9545	14792	11304	11783	4549
+	3	81812	22676	22200	26955	19216	3756	Strongl	9606 y agree	9.8	8.1	14.1	11.1	11.7	11.2
	2130	209374	19.2	21.0	26.2	18.8	9.3	9.9	10.6	10.4	+	+-	+	+-	
10629 22	24.01	18.5 +	+	·+-				+	-+2	+   217510	46567	39884	35410	44490	16082
10629 22 No opinion 14.2 2	∠4.U							41825	32264	474032					39.6
10629   22 No opinion 14.2   2	+		11171	11017		200/	210/	Agree	05 -1	44.2	39./	30.0	34.9	44.2	39.6
10629   22 No opinion 14.2   2 +	+ 4 6826	29647 93075					0	56.8	35.5	44.2 42.3					
10629   22 No opinion 14.2   2	+ 4 6826  7.4	29647 93075 6.0 8.2	9.5	10.4	10.2	9.7		56.8	+	++ +	+	+-	+	+-	
10629   22 No opinion 14.2   2 +	+ 4 6826  7.4	29647 93075 6.0	9.5	10.4	10.2	9.7		+ 17991	3 37698	++   172938  381939	41428	+-	34849	30231	12189
10629   22 No opinion 14.2   2 +	7.4 5	29647 93075 6.0 8.2	9.5	10.4	10.2	9.7		+ 17991  No opir	3 37698  nion	++ +	41428	34616	34849  34.4		12189 30.0

5609	4 7648	44090	16183	12205	15351	12957	6458
Disagree		9.0	13.8	11.6	15.1	12.9	15.9
7.0	8.4	+			+-	+-	
+	+	+					
		8846	3533	3596	4472	1108	1350
	3586		1	1			1
		1.8	3.0	3.4	4.4	1.1	3.3
1.2	3.9	2.4					
++-	+						
	Column	491659	117256	105093	101386	100568	40629
73591		1120984					
		43.9	10.5	9.4	9.0	9.0	3.6
6.6	8.1	100.0					
Number of M	Missing C	Observations	: 183423	s 			

 $\ensuremath{\text{Q5}}$  Supervisor maintain high safety standard by SAFELOC Which of the following best describes yo

		Office	Shop 1		Outdoors 1	_	Ship
ospital 7   05	8	Total	2	3	4	5	
+	1 18888  agree 20.7	114295   258173   23.1   22.9	19398	27111  25.8	18850  18.4	23670	8818  21.7
30072   3 Agree 40.3	2 39531  43.4	235620 517163 47.6 45.9	54947    46.7	43.8	38.5	51.6	47.7
15818   2 No opinior 21.2	3 25826	127820 282578	30309	22.01	20.01	20.01	15 1
918  Disagree 1.2	4 4961  5.4	12760 45880 2.6 4.1	7956	6158  5.9	5827  5.7	2301	4998  12.3
Strongly o	5 1951  disagre 2.1	4628   24039   .9	5054	1905  1.8	6579  6.4	1929	1328  3.3
74617	Column 91157 Total	495122 1127832 43.9	117665 10.4				

 ${\tt Q6}$  Inspections made at regular intervals by  ${\tt SAFELOC}$  Which of the following best describes yo

Number of Missing Observations: 176574

	nt   Pct  Office	Shop	Maintena	Outdoors	Flightli S	Ship
Clinic/H Other	1			(m! - 1 1		
ospital	l Row		nce	/Field	ne	
OSPICAL	l 1	1 2 1	3	4	5	6 l
	Total				] ]	0
Q6		++			++-	
+	+ 1   51948	13241	16234	8154	10313	7063
24049 1162						
	ee   10.5	11.4	15.5	8.0	10.2	17.6
32.3 12.						
		++			++-	
+		50031	27520	2/121	160001	12947
27928   3343	2   209673 36  451979	1 20031	3/339	24131	40009	1254/
Agree		42.9	35.7	33.7	45.6	32.2
37.6 36.	.9  40.3					
	+	++			++-	
+	+					

10527	3 38376	185172	39020	33935	41607	35243	15581
		37.5	22 E	22 2	41 0	2/ 0	38.7
	42.4		33.3	32.3	41.0	34.9	30.7
20.5		+	+-	+-	+-	+-	
++	+	-					
	4	38745	12147	12023	13407	5988	1432
2127	3692						
Disagree		7.9	10.4	11.4	13.2	5.9	3.6
2.9	4.1						
	+	+	+-	+-	+-	+-	
TT		7649	2139	5308	4119	3364	3219
734	3375		2133	3300	1117	3301	5215
		1.6	1.8	5.1	4.1	3.3	8.0
1.0	3.7	2.7					
		++-	+-	+-	+-	+-	
++	+						
		493394	116577	105038	101418	100997	40243
74375		1122543 44.0	10.4	0.4	0.0	0.0	3.6
6.6	8.1		10.4	9.4	9.0	9.0	3.0
0.0	0.1	100.0					
Number of 1	Missing C	bservations	: 181863				

 $\ensuremath{\mathbb{Q}} 7$  Leadership safety views seldom communicate by SAFELOC Which of the following best describes yo

Clinic/H (	N=10	Office	Shop M	Maintena	Outdoors	Flightli 8	Ship
ospital		Row			/Field		
7	8	1   Total					
+	+	+ 290031	9381	7451	3122	39291	3250
Strongly 2.6	7 agree 7.4	64874   5.9  5.8	8.0	7.2	3.1	3.9	8.1
+	+	+ 1020221	20065	25252	10126	10612	10000
11421   Agree 15.2	24862	242512 20.9 21.6	26.4	24.3	18.2	18.7	25.4
17083   No opini	3 26284  ion	139344    139344    326901   28.3	38507	30053	38966  39.2	27253	9409 23.4
+	·						
38236  Disagree 51.0	23883 26.0	173304  371580   35.1  33.2	26.7	26.0	29.0	36.2	31.9
+	+5						
Strongly	disagre 10.7	9.9					
+		+					
	91715 Total	493177 1120649 44.0 100.0	10.5				
Number of	Missing (	Observation	ns: 183758	3			

 ${\tt Q8}$  Safety meetings held less often than nec  $\,$  by  $\,$  SAFELOC Which of the following best describes yo

Count Col Pct	  Office Sho	M car	aintena Ou	tdoors Fl	iahtli Shi	n
Clinic/H Other	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
		no	ce /F	ield ne		
ospital	Row					
	1 1	2	3	4	5	6
7   8	Total					
Q8	+	+			+	
++						
1	17178	7870	7573	4894	2658	373
1069 3600	45215					
Strongly agree	3.5	6.7	7.2	4.8	2.6	.9
1.4 4.0	4.0					
	+	+			+	
++						

8311	17179	86109  185691   17.5				•	
11.1	18.9	16.5					
		188860	44856	37566	40188	34154	16346
	36.2						
		+	+-	+-	+-	+	
		152567	36772	32469	23981	37742	12557
		30.9	31.4	31.0	23.6	37.3	31.2
28.0	27.9						
		+	+-		+-	+-	
++							
76201	11794	48721	12529	10599	10973	14012	2654
		9.9	10.71	10 1	10.8	13 9	6.61
	13.0		10.7	10.1	10.0	13.7	0.01
		+	+-	+-	+-		
++		+					
		493435	117228	104769	101472	101145	40243
74777	90888						
6.7	Total 8.1	43.9	10.4	9.3	9.0	9.0	3.6
0.7	0.1	100.0					
Number of	Missing (	Observations	: 180448	8			

 $\ensuremath{\mathrm{Q9}}$  Good teamwork exists within unit by SAFELOC Which of the following best describes yo

Clinic/H O	ther	Office S					hip
ospital		Row   1			Field n		6
Q9	8	Total -++-					
	1	88472   181509	14951	11383	17997	15385	7466
Strongly	agree	18.0  16.2	12.8	10.9	17.7	15.4	18.6
++	+ 2	240381	50183	46898	40564	47499	16083
32957  Agree 44.0	41764 45.6	516329   48.8  46.0	42.9	44.9	40.0	47.5	40.0
++	+ 3	107882	31253	23516	30088	23892	70101
26773 No opini 35.7	21351 on 23.3	271766   21.9  24.2	26.7	22.5	29.7	23.9	17.4
++	+	· 2555	12060	10044	7500	0076	4000
3695  Disagree	7497	97256	11 0	10 2	7 5 1	0.1	12.2
4.9	8.2	97256   7.7  8.7 +		12.5	7.5	J.±	
00261	5	17958	6672	9760	5161	4118	4776
Strongly 3.0	disagre 4.7	3.6 4.9	5.7	9.3	5.1	4.1	11.9
++	+	+					
74932	91520	492462 1121866 43.9					
6.7		100.0	10.4	9.3	9.0	8.9	3.6
Number of	Missing C	) bservations	3: 182541				

 $\ensuremath{\mathtt{Q10}}$  Leadership shows that it cares about saf by SAFELOC Which of the following best describes yo

Count Col Pct Clinic/H Other	Office	Shop		Main	ten	a Outd	loor	s Flig	ght1	i Ship	Þ
CIIIIO/II CCICI	1			nce		/Fie	J.A	ne			
ospital	Row		^		2	,			_		_
7   8	Total	I	2		3	I	4		5	ı	6
Q10	+	-+		-+		-+		-+		-+	
+	-										

Strongly 35.8	17964  y agree 19.6	20.2	15.3	15.5	18.2	18.4	19.0
30839 Agree 41.4	43721   47.7	257146  544801   52.3  48.6	45.8	46.6	39.3	51.4	48.3
13546  No opin	21911	102264  254773   20.8	25.8	23.1	31.8	23.6	17.0
0740	2000	19349    58892   3.9    5.3	10.0	8.2	7.1	2.7	8.5
693 Strongly	4829	9701   9701   36231   2.0	3543  3.0	6953  6.7	3721  3.7	3898  3.9	2893  7.2
74524 6.6	91715 Total 8.2	491639 1121227 43.8 100.0	10.4	9.3			
Number of	MISSING (	Observation:	R. 183180	J			

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Q11  $\,{\rm My}$  actions can protect other personnel  $\,$  by  $\,$  SAFELOC  $\,$  Which of the following best describes yo

Clinic/H Oth		  Office	Shop i		Outdoors :		Ship
ospital 7   011 -	8 I	Total		3	4	5	
33875  2 Strongly a 45.0	1 28866  agree 31.5	146421   345457   29.6   30.7	28802	28.0	32.6	32.6	30.6
35866   4 Agree 47.7	2 15647  49.8	283939 614824 57.5 54.7	66183	59182  57.1	47738  46.6	54396  54.2	21874  54.4
4814 1 No opinion 6.4	3 14794  1 16.1	59757  149347   12.1   13.3	20225	12.3	19.2	12.9	11.1
Disagree .5	4 329  .4	2451   7716   .5   .7	534    .5	1.7	.9	.4	2.7
305  Strongly 6	5 2031  disagre 2.2	1642   6519   .3	284	.9	.8	Ī	1.2
75210	Column 91667 Total 8.2	494209 1123863 44.0 100.0	116027 10.3 ns: 18054	9.2			

Q12 My supervisors behavior is unsafe by SAFELOC Which of the following best describes yo  $\,$ 

Count | Col Pct |Office Shop Maintena Outdoors Flightli Ship Clinic/H Other

		_		ice /	Field r	ne	
ospital 7   012	8	1 1	2				
+	1 4423  7 agree 4.9		3525  3.0	1344	1975	1661	383  .9
	6125 6.7	31316  83360   6.3  7.4	10624  9.1	10526  10.1	10785  10.6	6461  6.5	4793  11.9
10843  No opini 14.6	3 25665  .on 28.2	96905  246997   19.6  22.0	26.0	23.0	30.0	19.2	23.2
47197  Disagree 63.6	36748 36748	233654  525064   47.2  46.7	47.5	41.6	39.7	47.1	51.1
Strongly	5 18105  disagre	123699    245133   25.0	17013  14.5	25141  24.1	18216  17.8	25566  25.5	5207  12.9
++ 74176 6.6	Column 91066	494994 1124506 44.0 100.0	117204	104426	102180	100077	40382
Number of	Missing (	Observation	s: 179900	)			

 $\ensuremath{\mbox{Ql}} 3$  Des. personnel trained in emergency prac by SAFELOC Which of the following best describes yo

Count Col Pct Clinic/H Other	Office S	shop M	laintena C	utdoors F	'lightli S	hip
		n	ice /	Field n	ie	
ospital	Row				- 1	- 1
/   0	ROW   1   Total					
1 26577  16086  Strongly agree	59047  159061					
35.4 17.6	14.2					
31169 38160						
41.5  41.7	45.8 44.8					
++ 3 13308  30488	165145	38292	35312	32345	26012	7521
No opinion 17.7   33.3	33.4	32.8	33.7	32.2	25.9	18.5
++ 4 3050  4008	36902    89658	13659	11326	10345	5420	4949
4.1 4.4	7.5  8.0					
++	6805					
Strongly disagre	1.4					
++ Column 75089 91522	494234	116895	104708	100421	100435	40629
75069 91522 Total 6.7 8.1	44.0	10.4	9.3	8.9	8.9	3.6
Number of Missing C	bservations	: 180475				

Q14 Leadership published a written safety po  $\mbox{\ by\ SAFELOC}$  Which of the following best describes yo

Cour Col I Clinic/H Other	Pct Office	-				Ship
ospital 7   8	   Row   1     Total	2		4	5	
+	1   90703  2  201432	12556	14202	16358	19462	4888
T	2   241596	56007  48.0	44846  43.3	42981  41.9	51174  50.6	18953  46.7
15173   3411 No opinion 20.5   37.5	3   134205	33.4	33.3	34.7	27.1	34.8
	4   20992	7.1	7.2	5.9	2.3	4.8
281   2362 Strongly disag .4   2.0	5   4594  2  13651 gre   .9	.7	2.5	1.6	.7	1.8
74104 914	+ umn 492091 50 1122092 tal 43.9	116579 10.4	103466 9.2	102627	101147	40629

Q15 Near miss accidents are investigated by SAFELOC Which of the following best describes yo  $\,$ 

Count Col Pct Clinic/H Other	Office S			Outdoors F Field n		hip
7   8	Row 1   Total -+	2	3	4	5	
26123  12256  Strongly agree 35.1  13.4	65248  165097   13.2  14.7	8.7	12.9	11.0	20.4	15.7
27723  35190  Agree 37.2  38.5	199289  435094   40.4  38.7	37.7	33.0	34.0	43.0	40.9
17087  38836  No opinion 22.9  42.5	200591   437465   40.7   38.9	42.7	40.8	43.2	31.6	31.2
2710   2913   Disagree 3.6   3.2	19712  58230   4.0  5.2	8.8	9.6	5.2	4.0	7.9
888  2284  Strongly disagre 1.2  2.5	8501  27614   1.7  2.5	2.1	3.8	6.6	1.0	4.3
74532 91479	493341 1123500 43.9					

Number of Missing Observations:	180906

Q16 Personnel morale is poor  $\mbox{\sc by SAFELOC}$  Which of the following best describes yo

Clinic/H O		Office	-				Ship
ospital 7   Q16	8	Row 1 Total	2	3		5	
9678 Strongly 12.9	1 13562  agree 14.8	58350 167439   11.9 14.9	22274    19.0	21047	18305  18.2	15880  15.8	8342  20.9
	23237   25.3	96770 268203 19.7 23.9	22.5	30.8	27.2	20.0	29.5
10988  No opini 14.6	3	141779 307173   28.9 27.4	28.9	27.7	26.7	29.5	20.3
Disagree 26.2	21668   23.6	153292 299050   31.2 26.7	24966    21.3	17195  16.5	23079  23.0	30089  29.9	9102  22.8
Strongly 5.6	5 6296  disagre 6.9	40537 78401   8.3 7.0	8.3	4.9	5.0	4.9	6.4
75072	91706 Total 8.2	490729 1120266 43.8 100.0	10.5	9.3			

 $\ensuremath{\mathtt{Q17}}$  Leadership does only what the law requir by SAFELOC Which of the following best describes yo

Count Col Pct	Office	Shon 1	Maintena (	Dutdoors F	iliahtli 9	hin
Clinic/H Other	OLLICC	SLOP I	· amicala (	Jucuoois i	119HC11 C	шр
		1	nce ,	/Field r	ie	
ospital	Row					
		2	3	4	5	6
7   8	Total -+					
+	·					
1	21281	4622	4848	5378	3685	1173
2452 5491	48930					
Strongly agree	4.4	4.0	4.6	5.4	3.7	2.9
3.3 6.0	4.4					
+		·+·	+-	+-	+-	
	67030	17468	20156	14348	13977	9369
8380   15450	166179					
Agree		14.9	19.3	14.3	13.9	23.3
11.2 16.9	14.9					
+		++	+-	+-	+-	
	172191	49703	40439	39835	29132	13093
21658  38407		15,05	10 100	33033	27132	15055
No opinion	35.4	42.5	38.8	39.7	29.1	32.6
29.0 42.0	36.3					
+		++-	+	+-	+-	
	173417	38080	30122	33931	44387	13138
21511   23184		30000	30122	33331	11307	13130
Disagree	35.6	32.6	28.9	33.8	44.3	32.7
28.8 25.3	33.9					
		·	+-	+-	+-	
+	53054	7114	8708	6851	9055	3389
20728  8983		, , , , , , , , , , , , , , , , , , , ,	3700	3031	2000	5505
Strongly disagre		6.1	8.4	6.8	9.0	8.4
27.7 9.8	10.6					

		++	+	+	+	+-	
+	+	+					
	Column	486972	116987	104273	100342	100236	40163
74729	91516	1115218					
	Total	43.7	10.5	9.3	9.0	9.0	3.6
6.7	8.2	100.0					

Number of Missing Observations: 189188

Q18 Understand safety & health regulations by SAFELOC Which of the following best describes yo

Count						
	Office S	Shop M	Maintena C	Outdoors F	lightli S	hip
Clinic/H Other						
		r	ice /	Field n	e	
ospital	Row					
	1	2	3	4	5	6
7   8	Total					
018	-+	+-	+-	+-	+-	
+	+					
1	101590	21062	28359	22678	27663	8408
28456   19935   Strongly agree	258151					
Strongly agree	20.8	18.1	27.2	22.6	27.7	21.1
38.0 21.7	23.⊥					
	+	+-	+-	+-	+-	
+	+					
2	300414	70081	55800	52639	59425	25459
39491 55139 Agree 52.7 60.1	61.6	60.1	53.5	52.4	59.5	63.8
52.7  60.1	59.0					
	+	+-	+-	+-	+-	
+	+					
3	78726	23009	18007	22632	11943	4452
6484   14163	179419					- 1
6484   14163   No opinion	16.1	19.7	17.3	22.5	12.0	11.2
8.6 15.4	16.1					
2721 -2721	+	+-	+-	+-	+-	
+						
4	5950	2170	2036	22131	763	1091
460   733	15416	- 1		- 1		
Disagree	1.2	1.9	2.01	2.21	.81	2.71
Disagree .6  .8	1.4		1	1		
	+	+-	+-	+-	+-	
+	+					
5	847	337	160	358	148	500
76 1726	41.61					
Strongly disagre	.21	.31	.21	.41	.11	1.3
.1  1.9	.4		1	1	1	-101
	++-	+-	+-	+-	+-	
+	+					
Column	487528	116660	104363	100520	99942	39911
74966 91706	1115595					
Total	43.7	10.5	9.4	9.0	9.0	3.6
6.7 8.2	100.0					
0.2						
Number of Missing	Observations	s: 188811				

Q19 Supervisors enforce safe job procedures by SAFELOC Which of the following best describes yo  $\,$ 

Clinic/H C		Office	Shop I	Outdoors 1	Ship
	8	Row 1 Total	2	4	6
Strongly	1 17848	95245   95245 224599   19.5	15919    13.6		
++ 35944  Agree	2 48407	+ + 269880 596006   55.4	++   64096    54.8		'
++ 11097  No opini	3 19478	+ + 111293 254311   22.8	++   31303    26.7		
++ 734  Disagree	4 3309	+ + 7858 28234   1.6	+   4759    4.1		

		+	+-		+	+	
++		+					
761	5 1837	10039	983	1453	1675	266	500
		.9	.8	1.4	1.7	.3	1.3
• +	2.0	.9					
			+-				
++							
	Column	487525	117060	104206	99909	99715	39819
74075	90880	1113188					
	Total	43.8	10.5	9.4	9.0	9.0	3.6
6.7	8.2	100.0					
Number of 1	Missing (	Observations	: 191218				

 $\ensuremath{\text{Q20}}$  Precautions used for hazardous mat. by SAFELOC Which of the following best describes yo

				Outdoors /Field	_	Ship
	Row 1	2	3	4	5	6
+	-+   89940    229646   18.5	20729	22576	17172  17.3	23663	8302 20.7
35233  42125  Agree 47.4  46.8	234034 540257 48.1 48.6	49.7	49.0	43.7	55.2	51.9
3 9049  27803  No opinion 12.2  30.9	157226	29.0	25.7	34.6	19.8	23.2
458  913  Disagree .6  1.0	2637 15912   .5  1.4	2.6	3.0	3.5	1.1	3.0
76  1464  Strongly disagn .1  1.6	2884    8029  =   .6    .7	.9	.7	.9	.5	1.2
74376 90010	1112223 1 43.8 100.0	10.5	9.4			

Q21 Adequate personnel to manage safety prog by SAFELOC Which of the following best describes yo  $\,$ 

		Office	Shop 1	Maintena (	Outdoors E	Plightli S	Ship
CITIIIC/H OUI	er	1					
			1	nce ,	/Field r	ne	
ospital		Row					
		1	2	3	4	5	6
7	8	Total					
021 -		++		+	+-	+-	
+	+						
	1	64957	11620	12990	11480	18144	5589
7303 1	3416					1	
Strongly a			10.01	12 4	11 7	18 4	13.9
9.8			10.0	12.1	11.7	10.1	13.5
9.0	17./	++					
++			55054	E000E1	00001	460401	
		242913	55074	52995	3./83T	46747	19878
47250 4	2001						
Agree		49.5	47.4	50.5	38.5	47.3	49.5
63.2	46.0	48.8					
		++	+	+	+-	+-	
+	+						
	3	153894	42109	30581	42077	27893	7876
18146 2	9908	352484		1			
No opinion		31.3	36.21	29 21	42 8	28 2	19.6
	32.8		50.2	25.2	12.0	20.2	15.0
47.3	J2.0	51.0					

		+	+-	+-	+-	+-	
++		-					
	4	22677	6469	5370	4180	4629	6351
1803	3798						
Disagree			5.6	5.1	4.3	4.7	15.8
2.4	4.2	5.0					
		++	+-	+-	+-	+-	
++		+					
		6699	921	2945	2718	1464	500
	2125						
		1.4	.8	2.8	2.8	1.5	1.2
.4	2.3	1.6					
		++	+-	+-	+-	+-	
++							
	Column	491141	116192	104882	98286	98878	40195
74785	91247	1115605					
	Total	44.0	10.4	9.4	8.8	8.9	3.6
6.7	8.2	100.0					

Number of Missing Observations: 188802

 $\ensuremath{\text{Q22}}$  Award program does not promote safety by SAFELOC Which of the following best describes yo

		  Office	Shop M			_	hip
ospital 7   Q22	8		2   		4	5	
4.3	1 6167  agree 6.8	19772  63393   4.0  5.7	8561  7.4	6.9	8.0	6.8	9.2
11477  Agree 15.4	2 17307  19.1	80957  189301   16.4  16.9	23848  20.5	19.1	12.4	16.6	16.7
25064  No opinio 33.6	3 45410  n 50.1	245878  546750   49.9  48.8	57993  49.8	47.6	62.8	41.3	46.3
31108   Disagree 41.7	4 16378  18.1	119077  262620   24.2  23.5	22390  19.2	20.7	13.0	29.4	23.6
3809  Strongly 5.1	5 5354  disagre 5.9	26962    57215   5.5    5.1	3558  3.1	5.7	3.9	6.0	4.3
74666	Column 90616 Total 8.1	492646 1119280 44.0 100.0	116350 10.4 ns: 185126	9.4			

 $\ensuremath{\mathtt{Q23}}$  Performance standards higher than safety by SAFELOC Which of the following best describes yo

Count Col Pct	Office	Shop	Maintena	Outdoors	Flightli	Ship
Clinic/H Other						
			nce	/Field	ne	
ospital	Row					
	1	2	3	4	5	6
7   8	Total					
Q23	+	+		+	++	
++						
1	23285	8689	5479	5788	5385	2121
	58559					
Strongly agree		7.5	5.2	5.9	5.4	5.2
2.9 6.2	5.2					
	+	+		+	++	
++						
2	102565	27298	25707	19290	21542	6388
	233527					
Agree	20.8	23.6	24.6	19.7	21.6	15.7
16.1 20.5	20.9					

		++-	+-	+-		+					
+	+										
41983		253647	57723	52084	58370	46144	19750				
No opinio		51.6	49.8	49.9	59.5	46.3	48.6				
56.0	51.4										
+	+	+	+-		+	+					
15699		95227	19825	17077	11086	22686	10141				
Disagree			17 1	16.41	11 2	22.01	25.01				
		19.4	1/.1	10.4	11.3	22.8	25.0				
20.9	18.4	18.7									
	++										
+			0072	4005	25401	2054	00001				
20001		17310	22/3	4035	3548	3954	2229				
	3203		1	1							
		3.5	2.0	3.9	3.6	4.0	5.5				
4.0	3.5	3.5									
		+	+-	+-	+	+					
++	+										
	Column	492034	115808	104381	98081	99710	40629				
74974	91174										
	Total	44.1	10.4	9.3	8.8	8.9	3.6				
6.7	8.2	100.0									
Number of 1	Missing O	bservations	: 187615								

 $\ensuremath{\text{Q24}}$  Super. understand job safety problems by SAFELOC Which of the following best describes yo

Cou Col Clinic/H Other		Office	Shop M				hip
ospital 7   8		Total	2	3		5	
8564  1326 Strongly agre 11.4  14.	1   52  1 ee   .6  +	60953  50434 12.4  13.5	10172  8.8	14.2	16.0	20.9	15.1
30568   4473 Agree 40.8   49.	2   17  5   .3  +	233234  31130 47.6  47.7	56700  49.3	49.0	39.8	53.5	55.5
34285   2687 No opinion 45.7   29.	3   75  3   .6  +	182638 92556 37.2 35.2	43178  37.5	34.2	37.6	23.8	23.0
1407  392 Disagree 1.9  4.	4   23   .3   +	28217 2.1 2.5	4026  3.5	1.8	4.2	1.5	2.8
151  189 Strongly disa .2  2.	5   97  agre   .1  +	11341 .7  1.0	1016  .9	.8	2.4	.3	3.5
74974 906 TC 6.7 8	lumn 573 1 otal 3.1	490350 113677 44.0 100.0		9.3			
NUMBER OF MISSI	шы 00	servation		, 			

Q25 Personnel follow lock./tagout procedures by SAFELOC Which of the following best describes yo  $\,$ 

Count						
Col Pct	Office	Shop	Maintena	Outdoors	Flightli 8	Ship
Clinic/H Other						
			nce	/Field	ne	
ospital	Row					
	1	2	3	4	5	6
7   8	Total					
Q25	+	+	+	+	+	
++						
1	44134	12457	12562	6459	9073	15720
5747 9003	115154					
Strongly agree	9.0	10.8	12.2	6.7	9.2	38.7
7.7 10.0	10.4					

		++-	+-	+-	+-	+-	
+	++						
	2	127001	40622	30117	23405	32047	15502
32537	21200						
Agree		25.9	35.3	29.2	24.1	32.5	38.2
43.8	23.5	29.1					
		++-	+-	+-	+-	+-	
+	++						
	3	301401	51303	52432	60903	54319	6818
	55877						
		61.5	44.5	50.9	62.8	55.0	16.8
45.7	62.0						
		++-	+-	+-	+-	+-	
+	++						
		11786	8158	4487	3357	2456	2088
	2445						
		2.4	7.1	4.4	3.5	2.5	5.1
1.6	2.7						
		++-	+-	+-	+-		
+	·+		0.500	00041	00401	0051	500
500		5563	2693	3394	2842	837	500
	1670		0.01	0.01	0.01	0.1	
		1.1	2.3	3.3	2.9	.8	1.2
1.1	1.9	1.7					
		++-	+-	+-	+-	+-	
+	+		115000	100001	06065	00522	40.000
E40E6		489884	115233	102991	96965	98/33	40629
/42/6	90195	44.2	10.4	0.2	0.7	0.0	2 7
6.5			10.4	9.3	8.7	8.9	3.7
6.7	8.1	100.0					
Name	361 1 0	Na	. 105500				
Number of	MISSING (	observations	3· 195500	,			

 $\ensuremath{\mathtt{Q26}}$  Safety training is part of orientation by SAFELOC Which of the following best describes yo

Coun Col Po Clinic/H Other	t   ct  Office	_			_	ship
ospital	Row		nce /			
7   8	1     Total					
+	+					
31237 17331	l   82987    224926					
Strongly agree 41.7 19.0	17.0					
+	+					
000000 00000	2   227248    501443					
29027  39107 Agree 38.7  43.0	46.6	47.2	40.7	37.2	49.9	55.6
	++		+-		+-	
+	+ 3   142725	35072	27546	32112	19203	6876
12577  29126 No opinion	305239	55072	2/510	52112	15205	0070
No opinion 16.8   32.0	29.2    27.4	30.3	27.1	31.9	19.2	16.9
+	++		+-	+-	+-	
	4   29533	7148	5557	11729	1873	1193
1891  3409 Disagree	62333 6.1	6.2	5.5	11.7	1.9	2.91
2.5  3.7	5.6					
+	+					
242 2035	5   5563    19092	888	4318	4333	829	884
Strongly disag	re   1.1	.8	4.2	4.3	.8	2.2
.3  2.2	1.7		+-	+-	+-	
+	+ mn 488057	115024	101675	100642	100114	40620
74974 9100	3 1113033					
Tota 6.7 8.3	al 43.8	10.4	9.1	9.0	9.0	3.7
Number of Missin	g Observation	s: 191373	3 			

 $\ensuremath{\mathtt{Q27}}$  Leadership is sincere about personnel sa by SAFELOC Which of the following best describes yo

	int Pct	Office	Shop		Main	iten	a Ou	tdoors	Flig	ghtl:	i Ship		
					nce		/F	ield	ne				
ospital		Row											
		1		2		3		4		5		6	
7   8		Total											

Q27		-++	+-	+-	+-	+-	
28049	1	92574   92574   222576	17240	17706	16827	23693	9741
Strongly	agree 18.8	19.0					
++							
31079	40044	251130  529981					
Agree 41.6	45.7	529981   51.4  47.9 +	43.8	46.2	46.7	46.7	43.1
++							
12050		127134  298197	38098	30381	30404	23819	8115
No opini	on 30.4	26.0					
++		÷					
	4	13458	6722	5451	3467	3581	4268
Disagree 3.0	2.9	41835   2.8  3.8	6.0	5.3	3.5	3.6	10.5
++		++	+-	+-	+-	+-	
242	10/10	4082  13897					
Strongly	disagre 2.2	.8					
++		+					
74704		488377 1106486	112354	102370	99530	99338	40506
		44.1	10.2	9.3	9.0	9.0	3.7
Number of	Missing (	) Dbservation	s: 197921				

 $\ensuremath{\mathtt{Q28}}$  Supervisors seldom act on worker sugg. by SAFELOC Which of the following best describes yo

Coun Col P Clinic/H Other	ct Office	Shop 1	Maintena (	Outdoors 1	Flightli S	Ship
ospital	Row 1 1	r	nce /	/Field 1	ne	
7   8	Total					
Q28	++ +	+-	+-	+-	+-	
	1   10329	3414	4683	1975	2757	3294
871  5649 Strongly agree 1.2  6.2	3.0					
+	++	+-	+-	+	+-	
6376  8920	2   45895    117489					
Agree 8.6 9.8	9.4					
+	· ++	+-	+-	+	+-	
	3   196485	50677	41747	46294	38733	15682
24139   41747 No opinion 32.6   45.8	40.3    41.0					
+	++	+-	+-	+	+-	
20893  25560	4   183819					
Disagree 28.2 28.0	37.7 35.2					
+	++	+-	+-	+	+-	
	5   51066	5417	7532	7732	8727	3111
Strongly disag 29.4 10.2	re   10.5    10.3					
+	++		+-	+-	+-	
Colu	mn 487594	115655	102443	100565	100008	40402
74099 9113 Tota	2 1111898 al 43.9	10.4	9.2	9.0	9.0	3.6
6.7 8.	2 100.0	_0.1	7.2	3.0	3.0	3.0
Number of Missin	q Observation	s: 192509	9			

 $\ensuremath{\text{Q29}}$  Emergency procedures rarely tested by SAFELOC Which of the following best describes yo

Count

Clinic/H O		Office	Shop	Maintena	Outdoors	Flightli	Ship
ospital		Row		nce			- 1
7	8	Total					
++	+ 1	17562					
1239  Strongly 1.7	3620 agree 4.0	39968   3.6   3.6 +	2.8	6.3	4.4	3.5	
++	+	66811					
Agree 8.4	12.2	13.7	20.8	21.1	14.5	10.8	9.3
++	+	+   197724					
No opini	38209  on	435164   40.5   39.2 +	40.2	40.3	44.6	39.1	30.6
++	+						
25232	28949	157451 351559					
Disagree 33.9	31.9	32.3	27.9	24.2	29.0	35.5	47.1
++	+	48332					
Strongly	disagre	9.9 11.2	8.3	8.2	7.4	11.1	13.0
	+						
74434	90822	487880 1109687					
6.7	Total 8.2	44.0 100.0	10.4	9.2	8.9	9.0	3.6
Number of	Missing C	) bservation	ns: 19472	0			

 $\ensuremath{\mathrm{Q}30}$  Safety officer improves safety by SAFELOC Which of the following best describes yo

Count Col Pct Clinic/H Other	Office S	_		Outdoors F Field n		hip
ospital	Row					
7   8   Q30	-+					
	49680					
Strongly agree 11.6   12.0	10.2	7.9	11.0	10.5	11.3	12.6
+2	+   167526	40768	31537	26428	36605	12758
Agree 30.0  32.0	33.1 33.1	35.2	31.1	26.3	36.8	31.6
40550  44000	243798					
No opinion 54.6  50.3	50.2	50.8	51.4	54.5	47.0	42.3
1994	17687	6401	4687	4137	4134	4960
Disagree 2.5  2.9	3.6 4.2	5.5	4.6	4.1	4.2	12.3
+	+   6610					
Strongly disagre 1.2 2.8	1.4					
+	+					
Column 74257 88260	485302 1105164	115729	101269	100565	99400	40382
	43.9	10.5	9.2	9.1	9.0	3.7
Number of Missing (	Observations	: 199242	2			

 $\ensuremath{\mathtt{Q31}}$  Leadership sets fine safety example by SAFELOC Which of the following best describes yo

Count Col Pct Clinic/H Other	  Office	Shop I		Outdoors :	_	Ship
	Row 1 Total					6
Q31	+	++-	+	+	+-	
1 24866  15491	79803	10114	12361	14889	15848	6817
Strongly agree 33.5   16.9	16.4	8.8				
+	237864	54893	45300	37308	46298	17338
Agree 40.2 41.3	48.8 45.7	47.7				
+						
17468 33151	353030	37902				
No opinion 23.5  36.2	31.8	33.0	35.4	38.8	31.0	23.5
+	-   13716	10025				
2.0 2.5	4.2	8.7				
+		++-	+	+	+	
5 635  2820	22637	2059	3837	2552	1645	2759
Strongly disagre	2.0	1.8				
+						
74318 91505	1109061	114993				
Total 6.7 8.3	44.0 100.0	10.4	9.3	8.9	8.9	3.7
Number of Missing C	Observation	ns: 19534!	5			

 $\ensuremath{\texttt{Q32}}$  Supervisors fits safety into performance by SAFELOC Which of the following best describes yo

Count Col Pct Clinic/H Other	Office S	Shop M	Maintena O	utdoors F	lightli S	nip
CIIIIO/II OUICI		r	ice /	Field ne	е	
ospital	Row					- 1
7   8	1   Total				'	
+	+					
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	72455	10604	14133	15594	17011	6629
23567  15406  Strongly agree 32.0  17.0	175399   14.9  15.9					
+						
2	223099	55830	46883	37285	49320	17740
38.5 42.9	45.9 45.0					
+	++-	+-		+		
	174840	43536	36034	36809	29584	10651
No opinion 28.0   36.8	36.0 34.8					
+	++-	+-	+-	+		
1006 1071	12727		,			
Disagree 1.5 1.4	3.4	4.1	4.6	7.0	2.5	8.5
	++-	+-	+-			
16601	2965					
Strongly disagre   1.8	.6					
+		+-	+-		+	
73555 Column 73555 90427	486087 1105652	115193	102295	98989	99290	39816

Total 44.0 8.2 100.0 10.4 9.3 9.0 9.0 3.6

Number of Missing Observations: 198754 \_\_\_\_\_

 $\ensuremath{\mathtt{Q33}}$  Preventive maintenance operates poorly by SAFELOC Which of the following best describes yo

Clinic/H O	Count Col Pct	Office	Shop	Maintena	Outdoors	Flightli	Ship
ZIMIC/II O	CICI	1		nce	/Field	ne	
spital		Row		_			_
7		Row   1   Total					
1622	1	176201	3566	7283	4042	3020	675
Strongly 2.2		43749   3.6  3.9					
+	 2	-   60495					
Agree	12.8						
22200	3	228385	46924	37790	44459	38049	10781
No opini 31.2	on 45.3	470935   46.8    42.5	40.8	36.9	44.9	38.7	26.5
01016	4	143590					
Disagree	27.5	332350   29.4  30.0					
+	5						
Strongly	disagre 7.9	7.7					
+							
74594	91130	487788 1108725				8.9	

 ${\tt Q34}$  Leadership participates in safety activi by SAFELOC Which of the following best describes yo

\_\_\_\_\_

Q34	8   	++	2	nce 3	/Field 1	ne 5	6
Strongly	1 10283  agree	51936  110642   10.7					
++		++				·	
	32964  36.6						
21595	42432	218201					'
	47.1	++					
Disagree	2658	67947	5.3	8.9	9.4	5.1	13.1
		4458					

	disagre 2.0	.9  1.5 +								
+	++									
	Column	486304	115303	101832	98627	98388	39456			
73612	90149	1103671								
	Total	44.1	10.4	9.2	8.9	8.9	3.6			
6.7	8.2	100.0								
6.7 8.2 100.0  Number of Missing Observations: 200736										

 $\ensuremath{\mathtt{Q35}}$  Safety officer has high status by SAFELOC Which of the following best describes yo

	Office	Shop 1	Maintena	Outdoors 1	Flightli S	Ship
Clinic/H Other	1	7	nce	/Field :	ne	
ospital	Row					
7   8	Total	2				
6818   9315	43346	8671				
Strongly agree 9.2   10.2	9.0	7.6				
+	+   142791	37231				
Agree 46.4 25.5	29.2	32.6				
26400   52526	255331	53301				
No opinion 35.7   57.7	50.5	46.6				
+	⊦   37579	14190	8339	13319	7973	7002
5227  4444  Disagree 7.1  4.9	7.7 8.9	12.4	8.2	13.5	8.1	17.4
+	-	++-				
5 1162  1537	9442	964	4704	6028	1591	697
1162   1537   Strongly disagre 1.6   1.7	1.9	.8	4.6	6.1	1.6	1.7
	488489	114357				
73848 91031 Total 6.7 8.2	1107176 44.1 100.0	10.3	9.2	8.9	8.9	3.6
Number of Missing (						

 $\ensuremath{\mathtt{Q36}}$  Hazards not fixed quickly are ignored by SAFELOC Which of the following best describes yo

		Office	Shop :	Maintena	Outdoors	Flightli S	Ship
CITIIIC/H Other	-	I		nce	/Field	ne	
ospital		Row					- 1
7   8	3 I		2	3	4	5	6
036			+	+	+	+-	
+	+						
			1494	3125	2393	1645	757
1483   32			1 2	2.11	0.41	1 51	1 0
Strongly agr 2.0  3		2.1	1.3	3.1	2.4	1./	1.9
2.0		++	+	+	+	+-	
+	+						
			19525	16651	18225	10550	10818
7796 114			17 1	16.21	10.2	10.7	عد دا
Agree 10.5   12			1/.1	10.3	18.3	10./	20.0
10.5  11		++	+	+	+	+-	
+	+						
			45699	40282	40053	32445	13718
35596 398			40.01	20.41	40.01	22.01	22.01
No opinion 48.1 44		40.1	40.0	39.4	40.2	33.0	33.0
10.1		++	+	+	+	+-	
+	+						
			40041	31987	32212	44295	11001
22767 263	325	389945					

Disagree 30.8	29.3	37.3 35.3	·			·	
+	+					·	
cacri		41927	7599	10114	6874	9376	4335
	8816 disagre	95407	6.6	9.9	6.9	9.5	10.7
8.6	9.8	8.6					
+	+						
74011	Column 89722	486633 1105579	114358	102159	99757	98311	40629
71011	Total	44.0	10.3	9.2	9.0	8.9	3.7
6.7	8.1	100.0					

Number of Missing Observations: 198828

 $\ensuremath{\mathrm{Q37}}$  Personnel take part in accident invest. by SAFELOC Which of the following best describes yo

Cour Col I Clinic/H Other	nt   Pct  Office	_			_	Ship
ospital 7   8	Row 1			/Field 1		6
	·++		+	+	+	
	1   44043	7651	11239	7142	8368	5220
6062 9483 Strongly agree 8.3 10.5	9.1   9.0   +	6.7	11.0	7.2	8.5	13.0
400201 20455	+ 2   198565	43408	36096	33259	48587	16115
Agree 58.5 33.9	7  449319   40.9  9  40.7	37.8	35.3	33.4	49.5	40.2
	3   225866					
21163   4593° No opinion 28.9   51.1	1 46.61	51.4	46.8	51.7	37.6	31.7
+	++ 4   14282	4700	6001	F100	2042	4054
2692 2261 Disagree	L  43950   2.9					
3.7  2.5	++	+-	+-	+	+-	
413 1788	5   2190	130	1079	2472	544	1078
Strongly disag	re   .5					
+						
73163 8992 Tot	25 1103093 tal 44.0					
6.6 8.						
Number of Missir	ng Observation	ns: 201314	1 			

 $\ensuremath{\mathtt{Q38}}$  Training by supervisor helps job safety by SAFELOC Which of the following best describes yo

en la la err e		Office	Shop :	Maintena	Outdoors 1	Flightli S	Ship
Clinic/H C	tner						
				nce	/Field 1	ne	
ospital		Row					
		1 1	2	3	4	5	6
7	8	Total					
038		-+	+	+	+	+-	
++		+					
	1	51220	88301	10693	13808	12982	5703
9350	13566		0050	10033	13000	12502	3703
		10.5	7 71	10 E	12 0	10 1	14.0
			7.7	10.5	13.0	13.1	14.0
11.3	15.1	11.3					
		+	+	+	+	+-	
++							
		205080	51201	42314	38476	49557	17796
43280	35020	482723					
Agree		42.2	44.6	41.5	38.6	49.9	43.8
58.5	39.0	43.7					
		+	+	+	+	+-	
++		+					
	3	209636	48299	42795	39437	29830	15044
20961		442810	10200	12/55	33137	25050	15011
20901	50007	112010					

	on 41.0	43.2 40.0	42.1	42.0	39.5	30.0	37.0
		+	+-	+-			
	+ 4 2158	16650	5438	5320	3044	6183	1585
Disagree		3.4	4.7	5.2	3.1	6.2	3.9
4	+	+	+-	+-		+-	
		3170	920	791	4992	756	500
Strongly		.7	.8	.8	5.0	.8	1.2
		+	+-	+-		+-	
++-	+						
73962	Column 89761	485755 1105771	114687	101914	99757	99307	40629
	Total	43.9	10.4	9.2	9.0	9.0	3.7
6.7	8.1	100.0					
Nimbox of N	Magina C	Nacarat i ana	. 100626				

Number of Missing Observations: 198636

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 $\ensuremath{\mathtt{Q39}}$  Medical facilities are sufficient by SAFELOC Which of the following best describes yo

Count						
	Office :	Shop M	Maintena O	utdoors F	lightli Sl	hip
Clinic/H Other						
		r	ice /	Field n	е	
ospital	Row					- 1
E   0	1	2	3	4	5	6
7   8	Total					
Q39		+-				
	67296	12176	10589	146001	12559	5397
12062   14520	1 [ 1 0 1 1					
Strongly agree	13 8	10.71	10.51	14 7	12 7	13 3
18.7 16.1	13.7	10.7	10.5		12.7	13.5
	++	+-			+	
++						
2	215987	44801	37411	35878	42619	15074
45650  32944  Agree 61.6  36.6	470365					
Agree	44.3	39.2	37.0	36.2	43.2	37.1
61.6 36.6	42.5					
	++	+-		+-	+	
++		44.005	000401	00054	004001	
400001 005001	148964					
10829 33562	340353	26.01	26.61	20 5	20. 61	20.1
No opinion 14.6   37.3	30.0	30.0	30.0	28.5	29.6	28.1
14.0  37.3	++					
+						
	37666	8495	7423	140561	8340	6127
3139  4426	89673	0155	, 123	11050	0310	0127
3139   4426   Disagree	7.7	7.4	7.3	14.2	8.5	15.1
	++	+-	+-	+-	+	
++						
. 5	17661	7672	8760	6347	5890	2626
645 4532	54133					
Strongly disagre	3.6	6.7	8.7	6.4	6.0	6.5
.9  5.0	4.9					
+		+-	+	+	+	
	487574	11/12/11	101221	00142	00600	40620
74126 89993	1105525	114241	101231	33142	30000	40023
74120 03333 Total	44.1	10 3	9.2	9.0	8 9	3.7
6.7 8.1	100 0	10.5	J.2	5.0	0.5	3.7
Number of Missing C	bservation:	s: 198872	2			

 ${\tt Q40}$  Leadership ignores safety during promoti by SAFELOC Which of the following best describes yo

	Office	Shop M	Maintena	Outdoors	Flightli S	Ship
Clinic/H Other	1			/Field		
ospital	Row	r	ice	/FleId	ne	
•	1	2	3	4	5	6
7   8	Total					
Q40	-++	+-			++-	
+						
. 1	14852	3082	6389	7333	3218	939
	41063					
Strongly agree		2.7	6.3	7.4	3.3	2.3
2.1 4.2	3.7					
	++	+-			++-	
+						
2		13461	13877	10575	8825	5459
6119   6341	105595					

Agree 8.4	7.1	8.5  9.6		13.6			13.6
++	+				<del>-</del>		
		232884	62124	50963	51413	45464	17397
No opini	47099 on 52.9	48.1	·			·	43.2
++	+				+-	+-	
		141531	29423	22697	20206	31840	11809
Disagree	21802	29.3 28.6					
		++-	+-	+-	+-	+-	
		53598	5959	8215	9354	8378	4680
Strongly		9.6					
++		+	+-	+-	+-	+-	
73133	Column 89092	483801	114047	102142	98881	97724	40285
		44.0	10.4	9.3	9.0	8.9	3.7
Number of 1	Missing C	) Diservations	s: 205300	)			

Number of Missing Observations: 205300

Q41 Safety officer is readily available by SAFELOC Which of the following best describes yo  $\,$ 

Count Col Pct Clinic/H Other	Office S	_			_	hip
ospital	Row		ice /			
/   8	1   Total					
10430  11087	+   60371  128786	8199	10802	8583	11728	7587
Strongly agree 14.2   12.3	12.6					
	+   193145	41552	34550	24825	40030	12972
Agree 54.7  32.9	417013   40.2  38.0	36.4	33.8	25.1	40.7	32.5
+	+					
20062   43300   No opinion 27.3   47.9	194689  457378   40.5					
	++	+-	+-	+-	+	
4 2142 3945	25404	7723	7185	14424	5605	6228
2142  3945  Disagree 2.9  4.4	5.3	6.8	7.0	14.6	5.7	15.6
+	++	+-	+-	+-	+	
623   2275	7197 22420					
Strongly disagre	1.5					
+	+					
73416 90388	480806 1098252					
Total 6.7 8.2	43.8 100.0	10.4	9.3	9.0	9.0	3.6
Number of Missing	Observations	s: 206154	ł			

 $\ensuremath{\mathrm{Q42}}$  This unit has a stable workforce by SAFELOC Which of the following best describes yo

Count   Col Pct  Office Shop Maintena Outdoors Flightli Shi	.p
Clinic/H Other	
nce /Field ne	
ospital Row	
1 2 3 4 5	6
7   8   Total	
Q42+	
++	
1   36472  3326  7921  5301  6158	3257
4958   7547   74939	1

	8.3	7.5 6.8					
Agree	31687  34.9	179101    374851   36.9	36944  32.9	30553  30.3	28694  29.1	34634  35.2	12211  30.1
33949  No opinio	37852  on 41.7	181599  439900   37.5	44.9	43.8	42.9	37.4	31.4
Disagree	7088 7088	66555    148558   13.7	17670  15.8	13435  13.3	13147  13.3	11802  12.0	8664  21.3
3686  Strongly	5 6563  disagre 7.2	21132 61980 4.4	3888	4816	9143	9001	3751  9.2
	+ Column 90737	484859 1100228 44.1	112123	100938	98656	98470	40629
Number of 1	Missing C	bservations	3: 204178	3			

 ${\tt Q43}$  Personnel afraid to report problems by  ${\tt SAFELOC}$  Which of the following best describes yo

Clinic/H O			Shop M			-	hip
ospital 7	8		r   2   +		4	5	
1158   Strongly	2861 agree 3.2	9939 24915 2.1 2.3	3276    3276    2.9	3188  3.2	2237	1874  1.9	383  1.0
Agree 5.2	2 5679  6.3	36472 86461   7.6 7.9	10518    9.2	8.9	9.2	7.8	11.0
18528  No opini 25.0	3 38606  on 42.6	182507 429952   37.8 39.2	49484    43.4	44.5	46.3	36.3	38.3
57.5	32175   35.5	196169 434803   40.6 39.6	41402    36.3	33.2	33.1	43.9	35.1
7917  Strongly 10.7	5 11205  disagre 12.4	57793 121078   12.0 11.0	9409    8.2	10.2	9.1	10.1	14.5
73989	90527 Total 8.3	482880 1097210 44.0 100.0	114088 10.4 ns: 207196	9.1			

 ${\tt Q44}$  Supervisors always investigate accidents by SAFELOC Which of the following best describes yo

Cour Col I Clinic/H Other	- !	Shop	Maintena	Outdoors	Flightli Sh	nip
			nce	/Field	ne	
ospital	Row					

8928   7.9  +- 40498   35.7  +-	11782  11.6  	7698  7.8  	11002  11.2  + 41579  42.2	5459  13.6   14475
35.7	38.3	32.1		
56742		+-	+-	
50.1	44.3	50.3	41534  42.1	40.2
5368  4.7	5089  5.0	7520  7.6	3822  3.9	3615  9.0
1805	751	2151	652	500  1.2
113342	9.2	98628	98589	40205
	1805  1.6  	1805  751  1.6  .7  	1805  751  2151  1.6  .7  2.2  	1.6  .7  2.2  .7  

Q45 Environmental cond. kept at good levels by SAFELOC Which of the following best describes yo  $\,$ 

		Office	Shop M	Maintena (	Outdoors 1	Flightli S	Ship		
			nce /Field ne						
ospital		Row 1	2	3	4	5	6		
7   045 -	8	Total	·						
++	+								
8054 1	11832	52173  115617				,			
Strongly a	agree	10.8	6.0	12.2	9.2	10.6	12.3		
11.0	13.2	++							
+		234176	468861	40661	37999	42437	14964		
30163   3	10001	101201							
Agree 41.3	38.01	48.3	41.7	40.3	38.3	43.6	36.8		
+		++	+-	+-	+	+-			
	3	157158	46625	36502	38131	31696	11883		
29764 3	35736	387495	41 5	36 21	38 41	32 5	29 2		
No opinior 40.7	39.8	35.3	11.5	30.2	30.1	32.3	25.2		
++		++	+-	+-	+-	+-			
4500	2027	28591	8020	7115	10371	9005	7270		
4526  Disagree 6.2	363/	5.9	7.1	7.1	10.4	9.2	17.9		
6.2	4.3	7.2	+-		+				
++	+								
580	4175	12644 34911							
Strongly o	disagre	2.6	3.7	4.3	3.7	4.0	3.7		
		++	+-	+-	+-	+-			
+		484742	112415	100895	99281	97415	40629		
73087	89677	1098141							
		44.1 100.0	10.2	9.2	9.0	8.9	3.7		
			20020						
Number of Mi	гаапід (	uservation	B. 200265	,					

Q46 Personnel dont use necessary PPE by SAFELOC Which of the following best describes yo

Count Col Pct Clinic/H Other	  Office Shop Maintena Outdoors Flightli Ship						
	Row	nce /Field ne					
ospital	1 1	2	3	4	5	6	
7   8   O46	Total						
+	+						
1104  2928	11192	2772	6281	3090	2326	1472	
1104   2928   Strongly agree 1.5   3.2	2.3	2.5	6.1	3.1	2.4	3.7	
+	+						
2 7291  10193	56908  151567	22155	18170	18747	10697	7406	
Agree 9.9  11.2	13.7	19.8	17.7	18.9	10.9	18.5	
+							
	202344						
No opinion 42.2   45.1	431247   41.4  39.0 +	37.9	35.6	37.5	30.9	25.8	
+	+						
27248   26051	173976	37048	32771	31264	45668	16445	
Disagree 36.9 28.8	35.6	33.0	32.0	31.6	46.3	41.0	
+	++- +	+-	+-		+-		
5	44354	7710	8758	8751	9382	4407	
7038  10563  Strongly disagre 9.5  11.7	9.1						
+	+	+-	+-		+-		
	488774	112125	102392	98964	98568	40094	
73891 90605 Total	1105413 44.2	10.1	9.3	9.0	8.9	3.6	
6.7 8.2	100.0						
Number of Missing Observations: 198994							

 ${\it Q47}$  Job stress is significant problem for me  $\,$  by  $\,$  SAFELOC Which of the following best describes yo

	Office S	Office Shop Maintena Outdoors Flightli Ship				
Clinic/H Other	1	r	ice /	Field n	e	
ospital	Row					
7   8	1 1					
+	+					
1 1606  4553	16112	5058	5691	4045	3241	3450
Strongly agree 2.2 5.1	4.0					
+	+	+-	+-	+-	+-	
23078 11594	47623  140720					
Agree 31.4 12.9	9.8					
+	+	+-	+-			
	212269	52844	41998	40336	41225	18282
No opinion 27.4  44.5	43.5					
+	+	+-	+-	+-	+-	
	164182	35968	29110	30820	37662	10667
Disagree 30.4 28.4	33.7					
+	+	+-	+-	+-	+-	
5	47253	8517	8796	9000	7594	3173
6266   8221   Strongly disagre	9.7	7.4	8.6	9.0	7.7	7.8
8.5  9.1	8.9	+-	+-	+-	+-	
+						
73402 90019	487439 1106764	114812	102450	99757	98443	40441
	44.0	10.4	9.3	9.0	8.9	3.7

Number of Missing Observations: 197643

 ${\tt Q48}$  Leadership insists supervisor think safe by SAFELOC Which of the following best describes yo

	:   ct  Office :	Shop M	Maintena (	Outdoors F	'lightli S	hip
Clinic/H Other	1	r	nce /	Field r	ie	
ospital	Row	0 1				
7   8   Q48	1   Total					
26134   15205	79134					
Strongly agree 35.3   16.8	17.4 +	12.5	15.9	15.6	19.8	15.3
+	+ 2   224153	51211	46565	40452	48209	19791
30541  38395  Agree 41.2  42.4	499316   46.0  45.1	44.6	45.9	40.6	48.5	48.7
1/227   22/01	370607	42899	35824	36730	28715	11740
No opinion 22.1 37.2	++	37.4	35.3	36.8	28.9	28.9
+	9613	5600	2071	4512	2191	2393
1039  2117  Disagree 1.4  2.3	2.0	4.9	2.0	4.5	2.2	5.9
+	+			+-	+-	
31  1132  Strongly disagr .0  1.3	7777 re   .4  .7	.6	.8	2.5	.5	1.2
+						
74081 90530 Tota 6.7 8.2	al 44.0	10.4	9.2	9.0	9.0	3.7
Number of Missing	Observations	s: 196645	5			

 ${\tt Q49}$  Leadership sets goals-hold all accountab by SAFELOC Which of the following best describes yo

Clinic/H C		  Office	-				Ship
Q49	8	++	2	3		5	'
Strongly 13.2	1 12173  r agree 13.5	59998  133814   12.3  12.1	8.3	14.1	9.9	13.4	12.7
38969  Agree 53.0	30396 33.7	166732  392926	33.7	33.3	30.7	41.1	34.8
22414  No opini	42415   .on 47.0	227249 488914 46.7	48.7	41.8	47.9	38.8	34.2
Disagree	3614  3614	29615    68897   6.1	9024  8.1	6644  6.5	5851  5.9	5485  5.6	6369  15.7
134 Strongly .2	5	18399   .7    1.7	1436	4328	5501	1139	1066
	,						

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72400	Column	486837 1102950	111501	102450	99188	98704	40629		
73490	Total		10 1	9.3	0.0	0.0	3.7		
6.7	8.2		10.1	9.3	9.0	0.9	3.7		
0.7	0.2	100.0							
Number of	Missing (	)bservations	: 201456	j					
	Q50 Personnel rarely dev. safety requirement by SAFELOC Which of the								
following	best desc	cribes yo							
	Count	1							
		Office S	hop M	Maintena O	utdoors F	Liahtli Sh	σi		
Clinic/H C							-		
			r	ice /	Field ne	2			
ospital		Row							
- 1			2	3	4	5	6		
	8	Total -++-							
Q50			+-						
,	1	14781	3185	7713	6122	2326	757		
1400	3245		3203	,,,,,,	0122	2520	,3,1		
		3.0	2.9	7.5	6.3	2.3	1.9		
		3.6							
		+	+-	+-	+	+			
++			16720	16164	15000	12501	TOOF !		
7702	2 11719	57215	TP /30	16164	1/932	13581	7005		
1192	11/19	T-40T33							

10.5	13.0	+					
		247181	54623	44327	43781	44730	15329
No opini		50.7	·				
++							
33973	4 17301	139858  325442	31763	28625	25103	33554	15265
Disagree		28.7	28.7	28.0	25.7	33.8	37.6
10.0	19.2	+	+-	+-	+-		
++		+					
5422	5 10253	28071	4432	5510	4692	4988	2273
		5.8	4.0	5.4	4.8	5.0	5.6
7.3	11.4	6.0					
+			+-	+-	+-		
	Column	487107	110733	102338	97631	99179	40629
73898	90027						
		44.2	10.1	9.3	8.9	9.0	3.7
6.7	8.2	100.0					
Number of	Missing (	)bservations	3: 202866	; 			

## Appendix H – Response Distributions by Service

Q1 Personn	nel identi	fy hazards	by XSV	C Impute	d Service
	Count   Col Pct	Army Na		arine C A rps e	
Row		1	2	2 I	4 1
Total 01		±			
291364		98402			
	-	24.2			
608633		207306			
Agree 52.3	1	51.1	·		
209296	3	78403			
209296 No opinio 18.0	on	19.3			
45348	4	17687	9306	7525	10831
Disagree 3.9	1	4.4			
9265	5	4172			
	disagre	1.0			•
1163907	Column	405971			
100.0	Total	34.9	26.3	12.9	25.9
Number of N	Missing Ob	servations	: 140500		

 ${\tt Q2}$  Frequent contact between personnel and 1  $\,$  by  $\,$  XSVC Imputed Service

	Count	ļ					
	Col Pct	Army I		Marine C A orps e			
Row		1 1	2	2	4 I		
Total 02		++					
220089		79493					
	agree	19.5					
592956	2	188562					
Agree 50.9		46.3					
04.005.6	3	86861					
213856 No opinio 18.4	on	21.3	·				
99069	4	32385					
Disagree 8.5		8.0					
39225	5	19945					
	disagre	4.9					
1165195	Column	407247					
100.0	Total	35.0	26.3	13.0	25.8		
Number of N	Missing O	bservation:	3: 139211 	. – – – – – – – –			

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 $\ensuremath{\mathtt{Q3}}$  Safety takes a back seat to production  $\ensuremath{\mathtt{by}}$  XSVC Imputed Service

		Army N		arine C A rps e	
Row	ı	1	2	3 l	4
Total		·+-			
~		25266			
54941 Strongly agree 4.7		6.2			
		52656			
140646 Agree 12.1		13.0			,
	3	104793			
280515 No opinion 24.2		25.8	22.2		
		158520			
483594 Disagree 41.7	I	39.1	43.4		
		64425			
199817 Strongly disag 17.2		15.9			'
Colu		405659			
Total	al	35.0	26.2	13.0	25.8

Number of Missing Observations: 144893

 ${\tt Q4}\,$  Personnel revise safety & health practic  $\,$  by  $\,$  XSVC Imputed Service  $\,$ 

	Count				
	Col Pct	Army N		arine C A	
Row		l 1 l	2	3	4
Total					
Q4		+   45585			
120946 Strongly 10.5		11.3	11.0	9.7	9.2
405101	2	157977	140622		
485121 Agree 42.1		39.2	46.3		
		136683			
390527 No opinio 33.9		33.9			
125682		47664			
Disagree 10.9		11.8			
	5				
29314 Strongly 2.5	disagre	3.7			
1151590	Column	402784			
100.0	Total	35.0	26.4	13.1	25.6

Number of Missing Observations: 152816

 ${\tt Q5}$  Supervisor maintain high safety standard  $\,$  by  $\,$  XSVC Imputed Service  $\,$ 

	Count Col Pct	Army	Navy	Marine C A	
Row				- 1	
Total Q5			++	- '	
060504	1	88732	77573	28753	67445
262504 Strongly 22.7	agree		25.6		
	2		146602		
531492 Agree 45.9			48.3		
	3		61728		
290668 No opini 25.1	on		20.4	·	
40005	4		12472		
48235 Disagree 4.2			4.1		
	5		4922		
25252 Strongly 2.2	disagre	3.3	1.6	2.2	1.3
4450450	Column	405853	303297	150078	298923
1158150	Total	35.0	26.2	13.0	25.8
100.0					

Number of Missing Observations: 146256

 ${\tt Q6}$   ${\tt Inspections}$  made at regular intervals by XSVC  ${\tt Imputed}$  Service

	Count Col Pct	  Army N		Marine C A	
Row		1	2	- 2 l	4
Total 06		++-		- 1	
_		39518			
146441 Strongly 12.8	agree	9.9			
	2	143572			
460680 Agree 40.1			40.5		
	3	+   154770	104041		
416882 No opinio 36.3	on	38.6	34.4		
	4	46215			
93310 Disagree 8.1			5.9		
30955 Strongly 2.7	5	++-   16717			
	disagre	4.2			
	Column	400792			
1148267	Total	34.9	26.3	13.1	25.7

Number of Missing Observations: 156140

Q7 Leadership safety views seldom communict by XSVC Imputed Service

	Count Col Pct				Marine C Air Forc			С		
Row			1	1	2	1	2		4	1
Total		1	1	ı	2	ı	3	1	4	-

Q7		+			
67763	1	23414	18157	9439	16752
	_	5.9		•	•
		84905			
247378 Agree 21.6		21.3		•	,
334995	3	128921			
No opinio 29.2	on	32.3		•	
270240	4	121439			
378249 Disagree 33.0		30.4		•	•
115004	5	+			
117224 Strongly 10.2	disagre	10.1			
	Column	399009			
1145609	Total	34.8	26.3	13.0	25.8
100.0					

Number of Missing Observations: 158798 

 ${\tt Q8}$  Safety meetings held less often than nec  $\,$  by  $\,$  XSVC Imputed Service

		  Army N 		arine C A rps e	
Row		1 1	2	3	4
Total		++-			
	1	20711	10164	4451	10662
45988 Strongly agre 4.0		5.2			
188640	2	80257			
Agree 16.4		20.0	16.3		
	3	144441			
441696 No opinion 38.5		35.9	42.2		
	4	111830			
351010 Disagree 30.6			31.9		
121125	5	+   44585	18826		
Strongly disa	gre	11.1	6.2	13.9	12.5
Col		++- 401824			
1148459					
To 100.0	tal	35.0	26.3	13.0	25.7

Number of Missing Observations: 155947

 ${\tt Q9}~{\tt Good}$  teamwork exists within unit by XSVC Imputed Service

	Count Col Pct	Army	Navy	Marine C A	
Row		1	2	3	4
Total					
Q9				24596	
182870	Τ.	6/165	45320	24390	43/09
Strongly	agree	16.8	15.0	16.5	15.5
16.0					
526356	2			73996	

Agree 45.9			41.0	48.2	49.7	48.4
280230	3			76445		
No opinio 24.4	n	1	'	25.4		
	4	+-		24012		
100192 Disagree 8.7			'	8.0		
56672	5	†-		10525		
	disagre		6.8	3.5	5.0	3.9
	Column	+-	400835	301460	148740	
1146319	Total			26.3		
100.0						

 $\ensuremath{\text{Ql0}}$  . Leadership shows that it cares about saf  $\;$  by  $\;$  XSVC Imputed Service

	Count Col Pct	Army	Navy	Marine C	
Row					
Total Q10		· -+	2	+	+
230242	1	/128	2 71963	2/566	59431
	agree		8  23.9		
555587	2		8   145858		
Agree 48.5			4  48.5		
259943	3		3   58524		
No opinio	on		6  19.5		
61922	4		9  15240		
Disagree 5.4			0  5.1		
38034	5		2 9155		
	disagre	•	2  3.0		
	Column		4 300741		
1145728	Total	34.	9 26.2	12.9	25.9
100.0					

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Number of Missing Observations: 158678

Q11  $\,$  My actions can protect other personnel  $\,$  by  $\,$  XSVC Imputed Service  $\,$ 

	Count Col Pct	  Army 1		arine C A	
Row		1 1	2	3	4
Total Q11		-+	+	+-	+
352188	1	123328	99027	44056	85776
Strongly 30.7	agree	30.6			
627400	2	218438			
Agree 54.7			53.2		
152564	3	54928	37515		
No opini	on	13.6	12.5	15.0	12.8
13.3		+		+-	+

7716	4		3738	2318	465	1195
Disagree .7		1	.9	.8	.3	.4
7048	5	i	2378	1652	2525	493
Strongly	disagre		.6	.5	1.7	.2
		+-	+-	+-	+-	+
1146916	Column		402810	300469	148384	295252
1140910	Total		35.1	26.2	12.9	25.7
100.0						

Number of Missing Observations: 157491

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Q12 My supervisors behavior is unsafe by XSVC Imputed Service

	Count Col Pct	  Army 1		Marine C A			
Row		1 1	2	2	4		
Total 012		.+					
24812	1	11710	4726	3403	4973		
Strongly 2.2	agree	2.9	1.6				
84717	2		20689				
Agree 7.4			6.9				
256276	3		66107				
No opini 22.3	on	24.7	21.9				
531152	4		149883				
Disagree 46.3			49.7				
251289	5		60259				
	disagre	19.3					
1148247	Column	402404					
100.0	Total	35.0	26.3	12.9	25.8		
Number of	Number of Missing Observations: 156159						

 $\ensuremath{\texttt{Q13}}$  Des. personnel trained in emergency prac  $\ensuremath{\texttt{by}}$  XSVC Imputed Service

	Coun Col F		  Army		Marine C A	
Row			1 1	2	3	4 1
Total Q13					+-	
160570		1	44037	56004	16326	44206
160572 Strongly 14.0	agree	2	11.0			
		2	157026		+- 63505	
513920 Agree 44.8					42.8	
355993		3			54426	
No opini	on				36.7	
92375		4			8523	
Disagree 8.0					5.7	
24750		5			5674	

Strongly 2.2	disagre	2.9	1.0	3.8	1.5	
	+	+-	+-	+-	+	
	Column	401146	302073	148456	295935	
1147610	m1	25.0	06.3	10.0	05.0	
100.0	Total	35.0	26.3	12.9	25.8	
Number of	Missing Ob	servations	: 156797			

 ${\tt Q14}$  Leadership published a written safety po  $\,$  by  $\,$  XSVC Imputed Service  $\,$ 

	Count Col Pct	  Army		Marine C A	
Row		. 1 1	2	3	4
Total Q14			· +-	+-	+
203203	1	64217	57403	25733	55850
	agree	16.0			
533030	2	178797			
Agree 46.5				45.4	
	3			46260	
340156 No opinio 29.7	on	31.7	·	•	·
53862	4	24676			
Disagree 4.7		6.1		3.9	
	5				
14985 Strongly 1.3	disagre	1.6			
	Column	401320			
1145236	Total	35.0	26.2	13.0	25.8
100.0					

Number of Missing Observations: 159171

Q15 Near miss accidents are investigated by XSVC Imputed Service  $\,$ 

	Count Col Pct	  Army N		arine C A	
Row			2	_	
Total 015		++-			'
-		40639			
167294 Strongly 14.6	agree	10.1			'
442671	2	139733			
Agree 38.6		34.8	43.4		
		176506			
448201 No opini 39.1		43.9			
59468		+			
Disagree 5.2		7.0			
		16833			
28578					
Strongly 2.5		4.2			
		401888			
1146212	Total	35.1	26.1	13.0	25.8
100.0	- 3001	33.1	-7	_3.0	_3.0

Number of Missing Observations: 158194

Q16 Personnel morale is poor by XSVC Imputed Service

	Count Col Pct	  Army 		Marine C A	
Row		1	2	3	4 1
Total 016			'		
~ '	1	67576	37711	20392	45798
171478 Strongly 15.0	agree	17.0		13.8	
	2			30885	
273438 Agree 23.9				20.8	
	3			44562	
314444 No opinio 27.5	on			30.1	
202001	4			40791	
303001 Disagree 26.5				27.5	
70450	5			11598	
79458 Strongly 7.0	_	6.5			
1141010		397309			
1141819	Total	34.8	26.5	13.0	25.8
Number of 1	_	bservation		8	

 $\ensuremath{\text{Q17}}$  Leadership does only what the law requir  $% \ensuremath{\text{by}}$  XSVC Imputed Service

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	Count Col Pct	Army N		Marine C A	
Row		1 1	2	3	4
Total Q17		++-			
50004	1	25483	9163	3753	11985
50384 Strongly 4.4	agree	6.5		2.5	
168726	2	57812			
Agree 14.8		14.6		17.0	
412567	3	154112			
No opinio	on	39.0		36.3	
385319	4	122295			
Disagree 33.9		31.0			
119582	5	35014			
	disagre	8.9			
1136578	Column	394717		147653	
100.0	Total	34.7	26.5	13.0	25.8
Number of I	Missing C	bservations	: 16782	8	

Q18 Understand safety & health regulations by  $\tt XSVC$  Imputed Service

	Count Col Pct	  Army N		arine C A	
Row		. 1 1	2	2	4 1
Total Q18		++-	·+-	+-	+
263369	1	83663	76610	32253	70842
Strongly 23.2	agree	21.2	25.4		
CT1 400	2	228238			
671420 Agree 59.1		57.8	59.6		
182061	3		42549		
No opini 16.0	on	18.3	14.1		•
15462	4	8775			
15463 Disagree 1.4			.5		
4500	5	1815	1120		
4690 Strongly .4	disagre	.5			•
1137003	Column		301395		
100.0	Total	34.7	26.5	13.0	25.8

Q19 Supervisors enforce safe job procedures by  $\tt XSVC$  Imputed Service

	Count Col Pct	  Army N		arine C A	
Row		1	2	- 3	4
Total Q19		' ++-	· +-		+
228015	1	69806	69617	26510	62082
		17.7			
		198982			
607655 Agree 53.6		50.4	54.0		
	3	106231			
258745 No opini 22.8	on	26.9	19.2		
	4		8126		
29384 Disagree 2.6			2.7		
10797	5	+   5083			
	disagre	1.3			
	Column		299365		
1134596	Total	34 8	26.4	13 0	25.8
100.0	13041	31.0	20.1	13.0	23.0

Number of Missing Observations: 169811

 $\ensuremath{\text{Q20}}$  Precautions used for hazardous mat. by XSVC Imputed Service

	Count Col Pct	Army		Navy		Mari: orps	ne (	Air e	Ford	С
Row		i	1	1	2	1	3	1	4	ī
Total Q20		-+		-+		+				-+

231432	1	70833	71757	26498	62343				
Strongly agree 20.4	I		23.9	•					
2 553314	+-		155287						
Agree 48.8		46.0	51.6	52.5	48.0				
3 323665	+-		69217						
No opinion 28.6			23.0	•					
15912	+-		3361						
Disagree 1.4			1.1	•					
5 8708	+-		1225						
Strongly disagre	-			•	.6				
Column	+-		300848	146502					
Total		34.7	26.6	12.9	25.8				
Number of Missing	Number of Missing Observations: 171376								

Number of Missing Observations: 171376

 $\ensuremath{\texttt{Q21}}$  Adequate personnel to manage safety prog  $\ensuremath{\texttt{by}}$  XSVC Imputed Service

	Count Col Pct	  Army 1		arine C A	
Row		1 1	2	3 l	4
Total 021		++		- 1	'
_	1	43982	38899	19024	44519
146424 Strongly 12.9	agree	11.1			
	2	173169			
555044 Agree 48.9			54.9		'
055040	3	146390			
357042 No opini 31.5	on	36.9	25.5		·
57441	4	23175			
Disagree 5.1		5.8	5.4		
	5		3699		
18262 Strongly 1.6	disagre	2.5			
	Column	396763			
1134214	Total	35.0	26.4	12.9	25.6
Number of	Missing O	bservations	s: 170193		

 $\ensuremath{\texttt{Q22}}$  Award program does not promote safety by XSVC Imputed Service

	Count Col Pct	Army	Na	уу	Marine C	Air Forc
Row						
			1	2	3	4
Total						
Q22						12016
63481		-				
Strongly 5.6	agree		6.6	6.0	5.0	4.1
		+	+			++
	2	7	3200	46660	26197	47976
194034						

Agree 17.1		18.4			,
555226		208226			
No opinion 48.8	I		45.8	•	
		69969			
266118 Disagree 23.4		17.6			,
57823		20628			
Strongly di 5.1					'
	column +	398108		145886	
1136682 100.0	Total	35.0	26.4	12.8	25.7

 $\ensuremath{\text{Q23}}$  Performance standards higher than safety by XSVC Imputed Service

	Count Col Pct	  Army 1		Marine C A	
Row		1 1	0 1	2	4 1
Total Q23		+		3	
	1	23585	13795	7475	13855
58709 Strongly 5.2	agree	5.9		5.1	
	2	90823			
238824 Agree 21.1		22.9		20.6	
	3	211001			
584685 No opinio 51.6	on	53.1	·		
211452	4				
Disagree 18.6		14.6		17.1	
40004	5	13920			
40231 Strongly 3.5	disagre	3.5			
	Column	397188			
1133900	Total	35.0	26.3	12.9	25.8

Number of Missing Observations: 170506

 $\ensuremath{\mathrm{Q24}}$  Super. understand job safety problems by  $\ensuremath{\mathrm{XSVC}}$  Imputed Service

	Count Col Pct	Army	Navy	Marine C a	Air Forc
Row		l 1	1 2	3	4
Total Q24		-+	-+	++	+
152095	1	5277	5   35869	17022	46429
	agree			11.7	
540284 Agree 47.8	2			70167	
		•		48.1	
396498	3			52931	
No opinio	on	'	'	36.3	

29960	4		11630	7767	3806	6757
Disagree 2.6			2.9	2.6	2.6	2.3
		+-	+-	+-	+-	+
	5		5102	3269	1837	1974
12182						
Strongly	disagre	1	1.3	1.1	1.3	.7
1.1		1		1		**!
		+-	+-	+-	+-	+
	Column		395291	298904	145763	291061
1131019						
	Total		35.0	26.4	12.9	25.7
100.0	10041		33.0	20.1	20.5	23.7
100.0						

Number of Missing Observations: 173387

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 $\ensuremath{\texttt{Q25}}$  Personnel follow lock./tagout procedures  $\ensuremath{\texttt{by}}$  XSVC Imputed Service

D	Count Col Pct	  Army Nav		y Marine C Air Forc		
Row		1 1	2	3	4	
Total 025		++				
_	1	25288	46670	11177	32150	
115285 Strongly 10.2	agree	6.4			'	
	2	79278 1				
328495 Agree 29.2		20.2		•	•	
	3	261072 1				
625099 No opinio 55.5	on	66.4		•		
37921	4	17703				
Disagree 3.4		4.5			'	
19007	5	+   9968				
		2.5				
4405000		393309 2				
1125808	Total	34.9	26.5	12.9	25.6	
Number of Missing Observations: 178599						

 ${\tt Q26}$  Safety training is part of orientation by  ${\tt XSVC}$  Imputed Service

	Count Col Pct	  Army		Marine C orps	
Row		1	2 1	3	4
Total Q26			+		'
	1	54266	76250	22158	74919
227593 Strongly 20.2	agree	13.7			
	2	159069	143781		
508646 Agree 45.1		40.3	48.1	43.9	49.2
307765	3		64312		
No opinio 27.3	on	33.9	21.5	33.0	21.3
63914	4	36389	11054	8239	
Disagree 5.7		9.2	3.7	5.7	2.8
19621	5		3432		

Strongly	disagre	I	2.8	1.1	2.0	.8
		+	+	+	+	+
1127539	Column	394	1755 2	98830	144039	289915
112/339	Total	3	35.0	26.5	12.8	25.7
100.0						

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 $\ensuremath{\text{Q27}}$  Leadership is sincere about personnel sa by XSVC Imputed Service

	Count Col Pct	  Army 1		Marine C A	
Row			0 1	2 1	4 1
Total Q27		-+		+-	+
224259	1	62949	72299	24897	64114
	agree	16.2		·	
538114	2	183078			
Agree 48.1		47.1		·	
300088	3	118716			
No opini 26.8	on	30.5			
41985	4				
Disagree 3.8		4.4			•
14505	5				
	disagre	1.8			•
	Column		297382		
1118951	Total	34.7	26.6	12.9	25.7

Number of Missing Observations: 185456

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 $\ensuremath{\text{Q28}}$  Supervisors seldom act on worker sugg. by  $\ensuremath{\text{XSVC}}$  Imputed Service

	Count Col Pct	Army		Marine C A	
Row			2	- 2 l	4 1
Total 028		±			,
32970	1	14698	9681	3128	5464
	agree	3.7	3.3		•
	2		32259		
118906 Agree 10.6			10.9		
	3		109951		
460899 No opini 41.0	on	43.9	37.0		
	4		107751		
395626 Disagree 35.2			36.3		
	5		37413		
115903 Strongly 10.3	disagre	8.1			
1104205	Column	392291	297054		
1124305	Total	34.9	26.4	12.9	25.8

Number of Missing Observations: 180102

 $\ensuremath{\text{Q29}}$  Emergency procedures rarely tested by XSVC Imputed Service

	Count Col Pct	  Army N		Marine C A	
Row		1 1 1	2	3	4
Total Q29		-+	+	+-	+
40114 Strongly 3.6		5.3	2.4	2.6	2.9
	2				
160326 Agree 14.3		17.5		14.7	
	3	175101			
439416 No opinio 39.2	on	44.7	·		•
	4	95126			
355448 Disagree 31.7		24.3		27.0	
	5	31940			
125426 Strongly 11.2	disagre	8.2	·		
1120731	Column	391376			
100.0	Total	34.9	26.3	12.9	25.8
Number of N	Missing (	Observations	: 183676	5	

 $\ensuremath{\text{Q30}}$  Safety officer improves safety by XSVC Imputed Service

	Count Col Pct	Army 1		Marine C A	
Row		1	2 1	- 2	4 1
Total 030		+			
116118		46250			
	_	12.0			
371772 Agree 33.3		114100			
		29.5			
562463 No opinio 50.4		200799			
		51.9			
		+			
46448 Disagree 4.2		4.5			,
		+   8357			
18936 Strongly 1.7	_	2.2			
1115555		386791			
1115737	Total	34.7	26.6	12.9	25.9
Number of 1	Missina O	hservations	: 188670	)	

Q31 Leadership sets fine safety example by XSVC Imputed Service

	Count Col Pct	  Army 1		Marine C A	
Row		1 1	2	2	4 1
Total Q31		.+	· +-	· +-	+
180437	1	55547	55789	18367	50734
	agree	14.3			
E10746	2				
510746 Agree 45.7		43.3	47.1		·
	3	135803			
355386 No opinio 31.8	on	34.9			
47249	4	19816			
Disagree 4.2		5.1	4.3		
00466	5				
23166 Strongly 2.1	disagre	2.4			·
	Column		295103		
1116984	Total	34.8	26.4	12.9	25.8

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 $\ensuremath{\mathtt{Q32}}$  Supervisors fits safety into performance by XSVC Imputed Service

	Count Col Pct	  Army N		Marine C A	
Row		1 1 1		3	
Total 032		++-			'
175399		54970			
	agree	14.1			
	2	+   160020			
502038 Agree 45.1		41.0		46.8	
	3	152626			
387023 No opini 34.8	on	39.1			
	4	17641			
37997 Disagree 3.4		4.5			
	5	+   5491			
10869 Strongly 1.0		1.4			
1113326		390749			
100.0	Total	35.1	26.2	12.9	25.8

Number of Missing Observations: 191080

 $\ensuremath{\mathtt{Q33}}$  Preventive maintenance operates poorly  $\ensuremath{\mathtt{by}}$  XSVC Imputed Service

	Count Col Pct	Army		Navy		Mari orps	ne (	C Air	Ford	2
Row		i	1	ĺ	2	1	3	1	4	ı
Total Q33		+		-+		.+		-+		+

43749	1		21290	8353	4234	9872
Strongly 3.9	agree					
179403	2			58882		
Agree 16.1				19.9	•	•
473773	3			103692		
No opinio 42.4	n			35.1	•	•
335551	4			101160		
Disagree 30.1				34.3	•	•
83924	5			23150		
	disagre			7.8		
1116399	Column			295237		
100.0	Total		34.9	26.4	12.9	25.7

Number of Missing Observations: 188007

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 $\ensuremath{\mathbb{Q}34}$  Leadership participates in safety activi by XSVC Imputed Service

	Count Col Pct	Army N		Marine C A	
Row			2 I	3	4
Total Q34		++-	+-	+-	+
110642	1	38866	27629	12512	31634
	agree	10.0			•
40000	2	129755			
437889 Agree 39.4		33.4		37.1	
455450	3	184047			
476152 No opinio 42.8	on	47.4		46.4	•
69101	4	27724			
Disagree 6.2				6.2	
17561	5	+   8181		2267	
	disagre	2.1			
1111345	Column	388573	292494		
100.0	Total	35.0	26.3	12.9	25.8

Number of Missing Observations: 193061

Q35 Safety officer has high status by XSVC Imputed Service

	Count Col Pct	Army	Na	vy	Marine orps	C Air E	Forc
Row		1	1	2	3	ı	4
Total							
Q35	1				+   1121		
100895	1	] 300	22	20921	1121	4 2	122
Strongly 9.1	agree	9	.9	9.2	7.	8	8.4
	_				+		
326436	2	913	47	115015	4278	9 7	7284

Agree 29.3		23.4			,
562330		205964			
No opinion 50.4	1		43.3		
		41679			
98535 Disagree 8.8	1		7.3		
26654		13165			
Strongly d: 2.4	isagre				
	Column +	390790	293416		
1114850 100.0	Total	35.1	26.3	12.9	25.7

 ${\tt Q36}~{\tt Hazards}$  not fixed quickly are ignored by  ${\tt XSVC}$  Imputed Service

	Count Col Pct	  Army		Marine C :	
Row		1 1	2	2 I	4 1
Total 036			++		
	1	12028	2128	3564	5237
22958 Strongly 2.1	agree		.7		
	2		++   37361		
154407 Agree 13.9			12.7		
	3		117467		
446274 No opinio 40.1	on		39.8		
393261	4		112757		
Disagree 35.3			38.2		
	5		++   25156		
95936 Strongly 8.6	disagre		8.5		
	Column		++ 294869		
1112835 100.0	Total	34.9	26.5	12.9	25.8

Number of Missing Observations: 191572

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 $\ensuremath{\mathrm{Q37}}$  Personnel take part in accident invest. by  $\ensuremath{\mathrm{XSVC}}$  Imputed Service

	Count Col Pct	:  Army		Marine C A	
Row		1	2	3	4
Total Q37		-+	· +-	+-	+
99207	1	37331	26679	10739	24457
Strongly 8.9	agree	9.6			
452100	2	142265			
Agree 40.7		36.5	45.3	39.0	42.6
	3	185369			
504709 No opini		47.6			
45.5		++	+-		+

43950	4		18872	10358	4979	9740
Disagree 4.0			4.8	3.5	3.5	3.4
		+-		+-	+-	+
	5		5458	2494	929	1342
10224 Strongly .9	disagre		1.4	.9	.6	.5
		+-	+-	+-	+-	+
	Column		389296	292004	143164	285726
1110190	Total		35.1	26.3	12.9	25.7
100.0						

Number of Missing Observations: 194216

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 $\ensuremath{\mathtt{Q38}}$  Training by supervisor helps job safety by XSVC Imputed Service

	Count Col Pct	Army	Navy	Marine C	
Row		l 1	2	1 2	4 1
Total Q38		· -+	-+	+	+
125161	1	4613	1 28050	14070	36910
Strongly 11.3	agree	•			
486599	2		4   153938		
Agree 43.7			5  52.4		
445035	3		4   100819		
No opinio	on	•	5  34.3		
41461	4		3   8612		
Disagree 3.7		•	3   2.9		
14144	5		8   2499		
	disagre	•	8  .9		
	G 1		-+		
1112401	Column	38933	1 293919	142735	286416
100.0	Total	35.	0 26.4	12.8	25.7

 $\ensuremath{\text{Q39}}$  Medical facilities are sufficient by XSVC Imputed Service

Number of Missing Observations: 192006

	Count Col Pct	Army		Marine C A	
Row		1	2	2 1	4
Total 039			++	•	,
	1	60648	36272	16513	37578
151011 Strongly 13.6	agree	15.5			
	2		145911		
472990 Agree 42.6	2		50.0		
342299	3	122420	79516	49853	90510
No opinio	on		27.3		
89673	4		20103		
Disagree 8.1			6.9	•	
55061	5		9840		

Strongly 5.0	disagre	5.7	3.4	4.7	5.7
		+	+-	+-	+
	Column	390797	291642	142424	286171
1111034	Total	35.2	26.2	12.8	25.8
100.0					

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 ${\tt Q40}$  Leadership ignores safety during promoti by  ${\tt XSVC}$  Imputed Service

	Count Col Pct	Army		Marine C A	
Row					
Total Q40		.++	2	· +-	+
41063	1	21830	5606	6959	6668
	agree	5.7	1.9		
105595	2				
Agree 9.6		11.0	9.0		
536270	3	200788			
No opinio	on	52.2			•
316187	4				
Disagree 28.6			36.7		
106324	5		27090		
	disagre	8.9		•	•
	Column		291672		
1105440	Total	34.8	26.4	12.9	25.9

Number of Missing Observations: 198967

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 ${\tt Q41}$  Safety officer is readily available by XSVC Imputed Service

	Count Col Pct	  Army		Marine C A	
Row		1 1	2	3	4
Total Q41		.+	· +-	+-	+
128786	1	43369	35702	14296	35419
	agree	11.2			
	2				
420701 Agree 38.1		31.8	44.0		
	3		108557		
459538 No opini 41.6	on	44.8			
	4		14153		
72655 Disagree 6.6			4.9		
22949	5		3054		
	disagre	3.2			
1104629	Column		288540		
104629	Total	35.0	26.1	12.9	25.9

Number of Missing Observations: 199777

Q42 This unit has a stable workforce by  $\ensuremath{\mathsf{XSVC}}$  Imputed Service

	Count Col Pct	Army	N	avy	Marine C	
Row		1	1 I	2	3	4
Total Q42		-+	+-		++	+
74939	1	3	0016	16899	8531	19493
	agree				6.0	
	2				52586	
377274 Agree 34.1					36.9	
	3				60391	
442986 No opinio 40.0	on				42.3	
	4				15448	
148854 Disagree 13.5					10.8	
	5				++ 2  5667	
62509 Strongly 5.6	disagre				4.0	
1106562	Column				142624	
100.0	Total		34.9	26.5	12.9	25.8
Number of N	Missing (	Observ	ations	: 1978	44	

 ${\tt Q43}$  Personnel afraid to report problems  $\mbox{ by }\mbox{ XSVC }$  Imputed Service

	Count Col Pct	Army 1		Marine C i	
Row		1 1	2	3	4 I
Total 043		++			
24915		12221			
Strongly 2.3	agree	3.2		2.0	
86461	2	36004			
Agree 7.8		9.3			
432417	3	168171			
No opinio	on	43.4		·	
137744	4	133941			
Disagree 39.7		34.6		34.4	
121607	5	36779			
	disagre	9.5		9.5	
1103144	Column	387115			
100.0	Total	35.1	26.2	12.9	25.8
Number of 1	Missing O	bservations	s: 20126	2	

 ${\tt Q44}$  Supervisors always investigate accidents by XSVC Imputed Service

Count Col Pct	  Army 	Navy	Marine C	
	l 1	1 2	2	4 1
	+	-+	++	+
1	4475	7  26519	11868	32701
agree				
2				
3				
on				
4				
5				
disagre		•		
Column				
Total	35.0	26.3	12.9	25.8
	Col Pet  1 agree 2 3 on 4 5 disagre Column	Col Pet Army    1  1   4475' agree   11.6 2   119149   30.8 3   202886 on   52.6 4   15299   4.6 5   4939 disagre   1.5 Column 38702'	Col Pct   Army Navy   1   2   2   1   44757   26519   agree   11.6   9.1   2   119149   140086   30.8   48.0   3   202886   108587   52.4   37.2   4   15295   13160   4.0   4.5   5   4939   3257   disagre   1.3   1.1   Column   387027   291611	Col Pet

 $\mathbb{Q}45$  Environmental cond. kept at good levels by XSVC Imputed Service

	Count Col Pct	Army		Marine C A	
Row		1 1	2	2 I	4 1
Total Q45		.++	· +-	+-	+
115617	1	41241	27812	14719	31846
	agree	10.7			
402605	2	   155082	138883		
483685 Agree 43.8			47.7		
390598	3	147336	98440		
No opini 35.4	on	38.3	33.8		
78734	4		18639		
Disagree 7.1			6.4		
35441	5		7625		
	disagre	3.3	2.6		
1104055	Column		291399		
1104075	Total	34.8	26.4	12.9	25.9

Number of Missing Observations: 200331 

Q46 Personnel dont use necessary PPE by XSVC Imputed Service

	Count Col Pct		Na	vy	Marine orps	C Air	Forc
Row		ı	1 I	2	3	1	<b>4</b> I
Total 046					+		
Q10	1				283		
31165			'				

Strongly 2.8	agree			2.0		
454565	2			42174		
151567 Agree 13.6				14.4	•	
	3			108730		
433929 No opinio 39.1	on		·	37.1	•	•
200000	4			111823		
392288 Disagree 35.3				38.2	•	
	5			24204		
101491 Strongly 9.1	disagre			8.3	•	
	Column			292703		
1110440	Total		35.0	26.4	12.9	25.7
100.0						

Number of Missing Observations: 193966

 ${\tt Q47}$  Job stress is significant problem for me  $\,$  by  $\,$  XSVC Imputed Service  $\,$ 

-	Count Col Pct	Army	N		Marine C a	
Row		1 .	1	2	3	4
Total Q47	1	· -+	+-	+	4303	+
43755 Strongly 3.9		1 !	5.1	3.2	3.0	3.6
140720	2				15645	
Agree 12.6					10.9	'
471157	3				61676	
No opinio	on				43.0	
357759	4				47701	
Disagree 32.2					33.3	
99349	5				14041	
	disagre				9.8	
1112741	Column				143366	
100.0	Total	3	5.0	26.3	12.9	25.7

Number of Missing Observations: 191666

Q48 Leadership insists supervisor think safe by XSVC Imputed Service

	Count Col Pct	  Army	-		Air Forc
Row		1 1	2	3 l	4
Total 048			'	+	· ·
~ -	1			20826	
192436 Strongly 17.3	agree	17.2	'		,
F01760	2	165519			
501762 Agree 45.1			'	45.1	,
381699	3	142604		52173	

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No opinio 34.3	n		36.6	30.7	36.5	33.7	
29536	4	+-		9421	4513	5605	
Disagree 2.7		I	2.6	3.2	3.2	2.0	
8306	5	+-		1918	937	1240	
Strongly	disagre	I	1.1	.7	.7	.4	
1113739	Column	+-	389444	294171	142937	287186	
100.0	Total		35.0	26.4	12.8	25.8	

Number of Missing Observations: 190668

 ${\tt Q49}$  Leadership sets goals-hold all accountab  $\,$  by  $\,$  XSVC Imputed Service  $\,$ 

	Count Col Pct	Army	Navy	Marine C	
Row					4 1
Total 049		'	'	-+	
133814	1	5202	2 3226	7   14812	34714
	agree			0  10.4	
	2			-++ 5  49974	
394511 Agree 35.6				4  35.0	
	3			-++ 0  67238	
492776 No opinio 44.4	on			4  47.1	
60000	4			-++ 5  8415	
68897 Disagree 6.2		•	•	9  5.9	
	5			-++ 0  2288	
18928 Strongly 1.7	disagre			3   1.6	
	Column			-++ 7 142727	
1108927	Total	34.	9 26.	3 12.9	25.9

Number of Missing Observations: 195479 \_\_\_\_\_\_

 $\ensuremath{\text{Q50}}$  Personnel rarely dev. safety requirement  $\ensuremath{\text{by}}$  XSVC Imputed Service

	Count Col Pct	Army 1		Marine C A	ir Forc
Row		I 1 I	2	3	4
Total Q50		-+	· +-	+-	+
39529	1	21788	7009	3241	7490
	agree	5.7			
140120	2	55228		18939	
148139 Agree 13.4		14.4		13.2	
525943	3				
No opini 47.5	on	50.8		50.6	
205520	4				
327738 Disagree		22.7	38.2	28.3	30.7
29.0		+	+-		+

66170	5		25223	16707	7874	16367
Strongly 6.0	disagre				5.5	5.7
	Column	+	384615	293067	143033	286804
1107518	Total		34.7	26.5	12.9	25.9

Number of Missing Observations: 196889

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# **Appendix I – Acronyms**

**DMDC** Defense Manpower Data Center

**DoD** Department of Defense

**DUSD(R)** Deputy Under Secretary of Defense for Readiness

**NSC** National Safety Council

OIG Office of Inspector General (DoD)

**OSD** Office of the Secretary of Defense

**SecDef** Secretary of Defense

USD (P&R) Under Secretary of Defense for Personnel and Readiness

# **Appendix J – Report Distribution**

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Under Secretary of Defense (Policy)

Under Secretary of Defense (Personnel and Readiness)

Under Secretary of Defense (Comptroller)

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Under Secretary of Defense (Acquisition, Technology, and Logistics)

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Inspector General, Department of the Army

## **Department of the Navy**

Naval Inspector General Auditor General, Naval Audit Service

### **Department of the Air Force**

Inspector General, Department of the Air Force

### **Joint Chiefs of Staff**

Deputy Inspector General

### **Other Defense Organizations**

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Defense Commissary Agency

Defense Contract Audit Agency

Defense Finance and Accounting Agency

Defense Intelligence Agency

Defense Security Service

National Geospatial-Intelligence Agency

National Security Agency

Defense Advances Research Projects Agency

Defense Contract Management Agency

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National Safety Council

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Senate Subcommittee on Defense

Senate Committee on Armed Services

Senate Committee on Governmental Affairs

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House Committee on Appropriations

House Subcommittee on Defense

House Committee on Armed Services

House Committee on Government Reform

House Committee on the Judiciary

House Subcommittee on National Security, Emerging Threats, and International Relations, Committee on Government Reform

House Subcommittee on Technology, Information Policy, Intergovernmental Relations, and the Census, Committee on Government Reform

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